VII

THE

TWELFTH ANNUAL REPORT

FROM

THE GOVERNORS

OF THE

MADRAS UNIVERSITY,

FOR

1852—53.

MADRAS:
PRINTED BY D. P. L. C. CONNOR, AT THE CHRISTIAN KNOWLEDGE SOCIETY'S PRESS, CHURCH STREET, VEPERY.
1853.

MADRAS UNIVERSITY.

Governors.

J. OUCHTERLONY, ESQ.
T. KEY, ESQ.
C. CUNNIAH CHETTY,
T. PYCROFT, ESQ.
ASUPH JUNG BAHADAR ETIMAD-OOD DOWLA.
MAJOR G. BALFOUR,
LIEUT. COL. F. A. REID, C. B.
CAPTAIN J. WILSON,
F. RENCONTRE, ESQ.
P. CARSTAIRS, ESQ.

Secretary.

A. J. ARBUTHNOT, ESQ.

EDUCATIONAL ESTABLISHMENT.

* *Principal, and Professor of Mathematics and Natural Philosophy.* E B POWELL, ESQ.

† *Professor of History, Political Economy, and Moral Science*.....A. A. GORDON, ESQ.

Professor of English Literature English Composition.....H. BOWERS, ESQ.

First Tutor of the High School.....MR. G. G WHITE,
Second..... ,, M. DUTT,
Third..... ,, T. B. PEPPIN,
Fourth..... ,, J NAILER,
Fifth.....C. TEROOVENGADUM NAIDOO,
Sixth.....MR. G. LANE,

Head Master of the Primary School.....MR. J. McLEISH,
First Tutor.....C. SAMA ROW,
Second do. .....MR. A. DIQUE,
Third do ..... ,, F. D'VAZ.

Writing Master..... ,, T F. JOHNSON.

Head Tamil Moonshee.....T. VIZAGAPERMAUL IYER,
Tamil Moonshee..... .....STREENEVASSA CHARRY,
Do. .....P. VEJIARUNGA MOODELY.

Head Teloogoo Moonshee. .....P. CHINNIAH SOOREE,
Teloogoo Moonshee.....C. P. HYAGREEVA SHASTRY,
Do. .....W. SASHIAH.

Maharatta Moonshee.....GUNGADER SHASTRY.

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* Charged with the General Superintendence of the whole Institution.
† In Charge of the Normal Class.

FUNDAMENTAL RULES.

1st. That it is expedient that a Central Collegiate Institution or University should be established at Madras.

2d. The Madras University to consist of two principal Departments, a College for the higher branches of literature, philosophy and science, and a High School for the cultivation of English literature and of the vernacular languages of India, and the elementary departments of philosophy and science.

3d. The governing body to be denominated the President and Governors.

4th. The College department to be placed under a Principal and Professors. The High School under a Head Master and Tutors.

5th. Members of all creeds and sects shall be admissible; consistently with which primary object, care shall be taken to avoid whatever may tend to violate or offend the religious feelings of any class.

6th. It shall form no part of the design of this Institution to inculcate doctrines of religious faith, or to supply books with any such view.

7th. No pupils shall be admissible in any department, but such as are able to read and write the English language intelligibly.

8th. Pupils shall pay according to such rates as may be hereafter established by the President and Governors.

9th. Should any sums be hereafter bestowed upon the Institution for the purpose of endowing Scholarships in the High School or Studentships in the College, the Students and Scholars appointed to them shall be admitted in such manner as may be determined by the President and Governors.

10th. The first President and Governors shall be appointed by the Governor in Council. There shall be sixteen Governors, seven of whom shall be Native Hindoos or Musselmauns, besides the President. The appointment of the President and six of the Governors shall rest permanently with the Governor in Council.

11th. Vacancies shall be effected by any continued absence from the limits of Madras for the space of two years, or by departure for England or for any permanent residence in any other presidency, or by resignation addressed to the Secretary, or by removal under order of the Governor in Council.

12th. Every Donor to the amount of 5000 Rupees shall if, and while, resident within the limits of Madras, become a life Governor, and, if not resident in Madras, shall have power to appoint a Governor who is so resident (subject to the confirmation of the Governor in Council) to hold on the same terms as the other Governors. But in all cases of persons so becoming life Governors, the Governor in Council may appoint a Governor who is not a Native, in case such life Governor or his Appointee be a Native, and the remaining Governors may elect a Native Governor in case such life Governor or his Appointee be not a Native.

13th. The President and Governors shall frame general rules for conducting the current affairs of the Institution, and they shall meet not less than once per month, five forming a quorum.

14th. In all questions to be decided by vote the President shall have a casting vote.

15th. The first business to be done at all Meetings when the President shall happen to be absent, shall be to appoint a Chairman who shall possess a casting vote.

16th. All rules and regulations to be made by the President and Governors shall be confirmed within six months by the Governor in Council, in default of which they shall be considered hereafter as annulled.

17th. The Governor in Council shall have power to remove not only any President or Governor, but also all persons holding any office or appointment whatever in the Institution. The President and Governors shall have power to remove all persons holding any office or appointment under them in the Institution.

18th. In case the Governor in Council shall hereafter appoint any Board of Public Instruction, the Members thereof shall be Visitors of this Institution, and shall have power to call for all papers and information. They shall also elect the eight Governors who are not nominated by the Governor in Council.

19th. The President and Governors shall make one annual Report to be furnished to the Governor in Council, or to the Board of Public instruction, as the Governor in Council shall direct, which Reports shall contain an account of receipts and disbursements, a list of donors and subscribers, and a general statement of their proceedings and of the progress of the Institution.

TWELFTH ANNUAL REPORT

OF THE

GOVERNORS OF THE MADRAS UNIVERSITY.

6th April, 1853.

To

The Right Honorable the

GOVERNOR IN COUNCIL,

Fort Saint George.

RIGHT HONORABLE SIR,

1. In submitting for the consideration of Government the Twelfth Annual Report on the progress of the Madras University, we have deemed it proper to premise the remarks we shall have to offer on the result of the recent examination of the scholars of the High School, by a brief review of the proceedings of our Board during the past year, in reference not only to the improvement of the Presidency Institution, but to the extension of education generally throughout the provinces subject to the Government of Madras.

2. Our Board, as the Government are aware, was re-constituted on the eve of the celebration of the last Anniversary, and having been led to infer from the circumstances under which we were appointed and from the remarks made by the Right Honorable the Governor, in the address delivered by him on that occasion, that our attention was to be directed to the general question of Native Education, as well as to the progress of the Institution more immediately under our charge, we proceeded without delay to a consideration

of the measures whereby the fulfilment of the responsible duty entrusted to us might be most successfully attained.

3. The result of our earlier deliberations was submitted to Government in a Minute of our Board, under date the 2d July last, a copy of which has been inserted among the appendices of this Report, and in which we advocated the early establishment of Public examinations for granting Test Certificates of educational attainments; the organization of Government Schools in the Provinces and of a Primary School at Madras; the erection of a suitable building for the Madras University in a more centrical locality; the establishment of Normal Classes, both English and Vernacular for training Teachers; the appointment of paid Examiners to conduct the examinations for the issue of Educational Tests and of one or more "Inspectors" for the organization and inspection of such Government Schools as might be established in the Provinces, and the general improvement of the system of Vernacular Instruction.

Appendix A

4. We also adverted to the eventual introduction of the Grant-in-Aid system, which for some years past has been in operation in Great Britain and has been attended with marked success, as being calculated to advance the cause of Native Education; and submitted a rough estimate of the funds which would be required for carrying out the several measures proposed by us, involving an expenditure of about one lac and fifty thousand Rupees per annum.

5. The foregoing minute was replied to by Government in an Extract from the Minutes of Consultation, under date the 1st November last, together with which the Board were furnished with an order of Government, dated the 22d June last, having reference to the several subjects which had formed matter of correspondence between the Board and Government from the first establishment of the University—the order in question having been recorded previous to the submission of the Board's Minute of the 2d July, but having

been kept back in consequence of its being understood that the Board were on the point of addressing Government on the topics to which it referred.

6. In regard to these orders it is sufficient to observe that the plans submitted by us in our Minute of the 2d July were but partially approved. The rules proposed by us for the Test Examination were pronounced to be unsuited to the existing state of Education in this Presidency; the proposal to erect a building for the use of the University was ordered to be referred for the orders of the Honorable Court of Directors, as was the proposed appointment of one or more Government Inspectors of Schools and of Public Examiners, the latter however being sanctioned temporarily pending the receipt of the Honorable Court's decision. The Board were authorized to establish eight Provincial Schools at the Stations, noted in the margin, at a monthly expenditure of Rupees 300 each, so soon as competent Masters could be obtained for them; the Government observing that with reference to the difficulty that would be likely to arise in regard to these schools from the want of competent Masters, and adverting to the probability that any who might be obtained from England, or even from Calcutta or Bombay, would prove inefficient for practical purposes in the interior of this Presidency, "the primary object of the University "Board should be the education of competent Masters and "that, as soon as such could be obtained, some Provincial "Schools might be founded at least as an experiment."

1. Trichinopoly.
2. Masulipatam.
3. Bellury.
4. Cannanore or Calicut.
5. Vizagapatam.
6. Combaconum.
7. Cuddapah.
8. Mangalore.

7. The establishment of a Primary School in connexion with the High School was sanctioned, as well as the establishment in the latter of the two Normal Classes, English and Vernacular, proposed by the Board. On the subject of Vernacular instruction the Government expressed their entire concurrence in the importance which the Board attached to it, and directed us to state whether we considered

it advisable to extend the plan as regarded the High School at Madras, beyond what was proposed in our Secretary's letter of the 12th May 1848, for organizing an improved system of Vernacular instruction by means of passed Proficients in the High School, who were to be appointed upon gradually increasing salaries to qualify themselves for succeeding to the several situations upon the Vernacular Establishment, most of which had then recently become vacant, and were, it would appear, intended to be held only temporarily by the present incumbents.

8. Our estimates of expenditure were pronounced to be considerably in excess of any thing the Government could sanction without the express permission of the Honorable Court, and to be founded on assumed data which the Government could perceive no hope of being realized within any definite period; and the Board were directed to submit a revised plan and estimate limiting the estimated expenditure to one lac of Rupees per annum, which it was inferred, would in future be available from the proceeds of the unappropriated balance of the educational funds hitherto allotted to this Presidency, added to the Parliamentary grant of Rupees 50,000 per annum.

9. Previous to the receipt of the orders of Government upon the measures proposed by us in July, our Board had taken into further consideration the expediency of at once introducing into this Presidency the Grant-in-Aid system, which was cursorily alluded to in our Minute, as being likely to be eventually feasible, but with reference to the condition of the country not susceptible of any practical adoption at the present time.

10. Upon further consideration, however, it appeared to us that the difficulties which had been apprehended with reference to the immediate introduction of the system were not of such a nature as might not be very readily overcome, and that not only was it peculiarly adapted to the circumstances of India, but was the only means

whereby an efficient system of National Education could be effectually carried out. A sketch of the Grant-in-Aid system and of the grounds upon which its early adoption has been advocated by our Board, is contained in a circular letter, which with the sanction of Government has been addressed by our Secretary to the several Collectors in this Presidency (and a copy of which is inserted in the appendix) calling for information as to the state of education in the several districts, the number of schools to which the Government aid might with propriety be granted with the view of increasing their efficiency, and the extent to which the inhabitants of the principal towns would be willing to co-operate with the Government towards the establishment of new schools, to which the assistance of Government should be afforded, upon the condition of their being open to the inspection of Government Inspectors. In this letter we observed that one of the main advantages of the system, and one which rendered it peculiarly applicable to the existing state of Society in India was the avoidance of all difficulties in regard to religion; the grant being available for all schools of whatever denomination, provided the instruction imparted be of an efficient character.

Appendix B.

11. The Government have been pleased to signify their warm approval of the plan proposed, and our Board are only awaiting the receipt of the information we have applied for from the Officers of Government in the Provinces, before submitting a detailed scheme for the distribution of such funds as are at present available for the purpose.

12. On the receipt of the instructions conveyed to us in the Extract from the Minutes of Consultation, under date the 1st November last, we at once proceeded to prepare a revised plan and estimate for the apportionment of the sum of one lac of Rupees, to which we were informed that the expenditure of the State for the purposes of education must for the

present be restricted. The scheme prepared by us for the appropriation of this sum is set forth in detail in our Secretary's letter of the 10th December last, a copy of which has been inserted in the Appendix. It provided for the establishment of a Primary School and a Collegiate Department in the Madras University, in addition to the High School, which was the only department of the Institution then in existence; for the establishment of Normal Classes, English and Vernacular, for the purpose of training Teachers; for the appointment of paid public Examiners; for the organization of five Government Schools in the Provinces at the stations noted in the margin, and for the introduction of the Grant-in-Aid system to a limited extent.

Appendix C.

Vizagapatam.
Cuddalore.
Combaconum.
Bellary.
Calicut.

13. In a subsequent communication, a copy of which is likewise annexed, we submitted a detailed statement of the measures which were considered expedient for improving the system of Vernacular Instruction in the Madras University, and for providing competent Vernacular Teachers for the projected Provincial Schools.

Appendix D.

14. The establishment of one Primary School at the Presidency had been recommended in our Minute of the 2d July, 1852, but it was then proposed as a distinct Institution, not in immediate connexion with the Madras University. On further consideration, however, it appeared to us that it would be more likely to answer the object in view, of providing efficient elementary instruction for the future scholars of the High School, by being placed under the immediate supervision of the Head of the principal Institution, and it has accordingly been organized as a department of the University, and has been located upon the premises at present occupied by that Institution. Mr. McLeish, lately 3d Tutor in the High School, has been appointed Head Master of the Primary School with three Assistant Teachers in the English Department to aid him

in the task of instruction. The arrangements in the Vernacular Department provide for the employment of the Vernacular Teachers indiscriminately in the three departments of the University, the hours of instruction being so arranged as to render their services available to one department while the scholars of the others are engaged in their English studies.

15. The Primary School has been divided into three Classes the studies of which have been arranged as follows:—

Classes.	*Subjects.*
1st or Lowest Class, ...	Spelling. Reading. Numeration.
2d Class, ...	Spelling. Reading. Arithmetic. Grammar and Writing.
3d Class, ...	Spelling. Reading. Arithmetic. Grammar. Geography and Writing.

16. According to the plan laid down by us, the course of instruction in future to be followed in the High School embraces the studies hitherto pursued in that Institution from the Lower Rank of the 1st Class, to the Upper Rank of the 3d Class or nearly so, including Spelling, Grammar, Arithmetic, History, Geography, Writing from Dictation, Euclid, Algebra, English Composition and Literature, Map-drawing and the elements of Book-keeping or Commercial Arithmetic; the subjects hitherto studied in the 4th Class of the High School and some of those belonging to the Upper Rank of the 3d Class having been transferred to the Collegiate Department.

17. Our reasons for recommending the immediate estab-

lishment of the Collegiate Department are fully stated in our Secretary's letters of the 10th December and *26th January. In the former of those communications we observed that on reviewing the course of study pursued in the High School, our attention had been attracted to the nature of the studies which for some years past had been pursued in the higher classes, and which were of a character usually reserved for a Collegiate course of instruction and in the other Presidencies are confined to the Collegiate Departments of the several Educational Institutions. It appeared to us that by having Collegiate work done under the name of School work, not only was a considerable stimulus taken away both from the Teachers and Pupils, but that the education bestowed at the Institution was naturally, though erroneously, supposed by those unacquainted with the system, to be inferior to that imparted in the Collegiate Institutions at Agra, Delhi, and elsewhere. "It may also," we observed, "be argued in favor "of the establishment of the Collegiate Department in the "University, that it would furnish an inducement to the "more advanced scholars to continue their studies at all "events one year longer than is their practice at present, "and that under the altered arrangements which the es-"tablishment of this department would involve, the atten-"tion of each of the Professors would be confined to a set "of kindred subjects, instead of, as hitherto, being devoted "to six or eight different subjects, and their respective effi-"ciency would in consequence be considerably increased." The latter indeed, as we remarked in our letter of the 26th January, was one of the principal reasons which weighed with us in advocating the measure ; the advantage of such a division of labor in the higher departments of educational instruction being invariably recognized in Europe, and appearing to us to be equally applicable to the Institution under our charge.

*Appendix E.

18. The measure was in the first instance objected to by Government as being somewhat premature, but in con-

sequence of the further explanation submitted in our Secretary's letter of the 26th January, has been sanctioned and carried out; the Collegiate Staff being constituted as follows:—

E. B. Powell, Esq. .... Principal of the University and Professor of Mathematics and Physical Science.

A. A. Gordon, Esq. .... Professor of History, Political Economy and of Mental and Moral Philosophy.

H. Bowers, Esq. ..... Professor of English Literature and English Composition.

19. In addition to the foregoing subjects, all of which, with the exception of Moral Philosophy, had been latterly taught in the senior classes of the High School, we proposed the establishment of a Professorship in General Jurisprudence and the Laws of India, which however has been referred for the orders of the Honorable Court of Directors. We cannot but think that the subject is one in which the means of instruction should be made available to the Natives of this Presidency, and that the appointment of a well qualified Professor would contribute materially to the improvement of the Judicial Department, by raising up a body of Natives to take part in the administration of justice who would bring to the performance of their duties that knowledge of the rules of evidence and of the general principles of jurisprudence, which is so essential to the successful performance of judicial functions.

20. Of the Normal Classes sanctioned by Government in the Extract from the Minutes of Consultation, under date the 1st November 1852, that intended for the training of English Pupil Teachers has been already organized, and the instruction of it has been entrusted to Mr. Gordon, the 2d Professor in the University, who has had some experience in England in the system of Normal Training. The

rules laid down for the formation of the English Normal Class are set forth in a Notice which was issued in December last, inviting applications from Candidates for admission, and a copy of which is inserted in the Appendix. The formation of the Vernacular Class has been unavoidably delayed for want of a competent Vernacular Superintendent, but will be brought into operation so soon as the services of a person qualified to superintend it can be obtained. We anticipate much benefit from the formation of these classes, which we trust will ere long supply an efficient body of Native Masters for employment in the Educational Institutions of Government.

Appendix F.

21. The cost of the several measures which are now in progress for the improvement of the Presidency Institution raises the expenditure to be incurred at the Presidency to a sum but little short of a moiety of the funds at present allotted for educational purposes throughout the provinces subject to this Presidency. From this sum, however, as is pointed out in our letter of the 26th January, it is necessary that several items should be deducted, involving an annual charge of nearly Rupees 10,000, which cannot fairly be included among the charges of the Madras University, but must be debited to the general purposes of education for the entire Presidency, and which being deducted from the aggregate amount of expenditure incurred at the Presidency, the charges to be borne by the University will but little exceed Rupees 40,000, an amount which, as has been already observed by us, even with the limited funds at present available for the purposes of education, "we cannot look upon as an undue "proportion to be assigned to the Central Institution, consi- "dering the population of Madras and the high standard of "instruction which the principal Educational Institution of "Government should be competent to afford."

22. Of the remainder of the funds available we have proposed to allot Rupees 30,000 per annum for the establishment of five Government Schools in the Provinces at the

stations mentioned in para. 12 of this Report; the cost of each school allowing for a fee of one Rupee from each Scholar being estimated at Rupees 450 per mensem. Our estimates for the organization of these Schools have been framed so as to make a sufficient provision for the employment of European Head Masters, which under the present circumstances of the country we consider to be essential to the efficiency of the projected Schools.

23. The course of tuition to be followed in the Provincial Schools will at the commencement be confined to the following subjects—Reading, Writing, Arithmetic, Geography, English and Indian History, Euclid, Book I. and Algebra to the end of Quadratic Equations, the mensuration of land and the Vernacular language of the district in which the School is located. We hope to be able to report to your Honor in Council the organization of one or more of the projected Schools before the close of the present year.

24. The sum left available for the operations of the Grant-in-Aid system, viz. Rupees 20,000 per annum, is comparatively inconsiderable, and has precluded our making any provision for the appointment of Government Inspectors, whose important duties must be entrusted to the local authorities until an addition shall have been sanctioned to the available educational funds. We trust, however, that the recommendation which we learn has been forwarded to the Honorable Court for permission to increase the Educational Funds to the sum of one lac and a half of Rupees per annum, will have the effect of enabling us at an early period to extend the operations of the Grant-in-Aid system, and to provide for the appointment of efficient Inspectors to aid us in its development, and in the organization and superintendence of the Provincial Government Schools.

25. It is our intention, early in the ensuing year, to hold a public examination, at which the rewards specified in the resolution of Government, under date the 25th June 1845, will be offered for competition to all candidates wherever

educated, and we shall shortly publish a notification of the subjects in which the examination will consist, with an intimation that the names, of not only the successful candidates, but of all who may pass a creditable examination, will be published in the *Official Gazette.*

26. Having concluded our resumé of the several measures proposed by us during the past year for the general diffusion of education, we shall now proceed to advert to the progress of the Institution immediately under our charge during that period, and to the result of the public examination held in December last. The number of scholars at the date of the last Annual Report was 182, the present number is 448. The great increase is to be attributed partly to the establishment of the Primary School which contains 238 pupils, and partly to the reduction of the school fee charged in the High School from four Rupees to two Rupees per mensem. This latter measure had been frequently discussed by the members of the former Board, several of whom were satisfied that the small number of scholars attending the Institution was mainly attributable to the high rate of fee demanded in it. The subject was adverted to in our Minute of the 2d July last, as we were desirous to avoid the adoption of a step, which if once taken, could not without much difficulty be retraced, until we were fully satisfied of its expediency. The result of our enquiries satisfied us that no material increase in the number of scholars could be expected until the fee be reduced, and we accordingly decided on its reduction which was carried out from the commencement of the present year, the fee in the High School being fixed at two Rupees and that in the Primary School at one Rupee per mensem. It is proper to state with reference to the number of scholars now on the list of the Institution, that several applicants have been refused admission for want of sufficient accommodation in the present building. We have learnt however with much satisfaction that the Superintending Engineer at the Presi-

dency has been directed to prepare a plan and estimate for the erection of a building in a centrical situation, and we are now engaged in communicating with that Officer in regard to the extent of accommodation that will be required. We trust that the erection of the proposed building will be speedily commenced, and that at no distant date the principal Educational Institution of this Presidency will be possessed of an edifice worthy of the objects with which it was founded.

27. The result of the Examination held in December has been generally satisfactory and we have much gratification in conferring Proficient's Degrees upon the following Scholars:—

A. Narrain Row, C. Teroovengadum,	With honors of the 2d Class.
V. Kristnamacharry, A. Dique,	With honors of the 3d Class.

The remaining scholars of the 4th Class, T. Moottoosawmy, V. Rajagopaul, P. Chinnathumbee and P. Vurdacharry, who have continued in the Institution with the view of prosecuting their studies in the Collegiate Department, have also acquitted themselves most creditably, and considering that they were only promoted into the 4th Class at the commencement of the past year, their success in the examination is the more meritorious. We would especially advert to the attainments of T. Moottoosawmy, who has been placed first on the examination lists in nearly all the subjects of study.

28. We have awarded the Patchiappah's Vernacular Prize to A. Narrain Row, for a Teloogoo exposition of the life of Sir William Wallace, but we regret to state that none of the English Essays written in competition for the Elphinstone Prize have been deemed by us deserving of that honor.

29. Tabular Statements of the course of study pursued during the past year, and of that pursued in the Institution as now organized; the written questions proposed at the exam-

ination to the senior scholars; selections from the exercises of the most distinguished scholars; the reports of the Examiners, and an account of the last year's receipts and disbursements will be found among the appendices of this report.

30. The following scholars have been elected to vacant Scholarships:—

In the Collegiate Department.		In the High School.	
T. Moottoosawmy,	Government Scholars.	L. Vurdarazooloo,	Government Scholars.
V. Rajagopaul,		S. Soobramaneyen,	
P. Vurdacharry,		T. Coopoosawmy,	
C. Ramiah,		M. Colundavaloo,	
P. Chinnathumbee,	Patchiappah's Endowed Scholar.	C. Coopoosawmy,	
		T. Jeyaram,	
		Y. Allagasingari,	

and to the following scholars, prizes have been awarded for distinguished merit.

In English Studies.

T. Moottoosawmy,	4th Class,	2d Rank.
C. Vurdacharry,	do.	1st do.
C. Ramiah,	3d do.	2d do.
V. Soobramaneyen,	do.	2d do.
M. Colundavaloo,	2d do.	2d do.
Y. Allagasingari,	do.	1st do.
M. Shunmoogum,	1st do.	1st Division.
P. Poonoosawmy,	do.	2d do.
E. White,	Preparatory Class.	

In Writing.

L. Vurdarazooloo.

In Vernacular Studies.

Tamil.	*Telugu.*	*Mahratta.*
P. Somasoondrum,	Y. Allagasingari.	C. Ramiah.
T. Davasagamany,	N. Narrainsawmy.	
M. Parthasarady.		

Translation Prize.	*Translation Prize.*
P. Somasoondrum.	B. Gopauliàh.

31. We have every reason to be entirely satisfied with the Teachers in the Institution. The valuable services of the Principal, Mr. Powell, have been frequently brought to the notice of Government, and it only remains for us to express our high sense of those services and of the assistance we have received from him in the course of our deliberations on the several measures which have been brought under our consideration during the past year. The zeal and ability evinced by Mr. Gordon in the performance of the duties entrusted to him, are deserving of the highest praise. We have to acknowledge the assistance rendered by the Gentlemen who officiated as public Examiners at the late examination, viz., the Rev. John Richards, Messrs. J. B. Norton, E. Salmon, and A. J. Arbuthnot, and the Government Translators Messrs. C. P. Brown, W. H. Bayley, and Major Crisp.

Since our last Annual Report was submitted, our Board have had to regret the loss of our able President, Mr. George Norton, the earliest and most zealous promoter of the cause of Native Education in this Presidency.

We have the honor to be,
Right Honorable Sir,
Your very obedient Servants,

(Signed) J. OUCHTERLONY,
„ THOMAS KEY,
„ C. V. CONNIAH CHETTY,
„ T. PYCROFT,
„ ASIF JUNG,
„ G. BALFOUR,
„ F. A. REID,
„ W. J. WILSON,
„ F. RENCONTRE,
„ P. CARSTAIRS.

APPENDIX A.

MINUTE OF THE BOARD OF GOVERNORS OF THE MADRAS UNIVERSITY,

Suggesting several measures deemed by them of essential expediency for promoting the successful progress of that Institution, and towards the advancement of Education generally in the Presidency.

1. This Board of President and Governors of the Madras University having been re-constituted under an order of the Right Honorable the Governor in Council, dated 13th April last, and having had entrusted to them the task of submitting to Government any expedient measures, not only for promoting the successful progress of the Institution under their more immediate charge, but also towards organizing other Institutions with a view to the more general diffusion of education throughout the Presidency, take the earliest opportunity of laying before the consideration of Government the result of their first consultations directed to these objects.

2. There being at present but one single Institution throughout the Presidency founded by, or under the immediate control of Government, namely : *the High School of the Madras University*—the duties to be undertaken by the Board in organizing any general system and in establishing further Educational Institutions will prove of an extensive nature, and will call, probably, for several communications from us in detail, and embracing many important topics. In the first instance our Board have confined their attention to those which they have considered of the most general importance—forming indeed the foundation of ulterior measures.

3. These topics are the following :—

First.—The issuing of Test Certificates of educational attainments, upon a regulated scheme.

Secondly.—The organization of *Primary* Schools both in the Provinces and at Madras itself, as well as one or more *High Schools* in subordination to the Central Institution of the Madras University.

Thirdly.—The erection of a suitable structure in a suitable situation for the High School and eventually for the Collegiate Classes of the Madras University.

Fourthly.—The improvement of the system of Vernacular instruction, including the preparation of competent Vernacular teachers and also of Vernacular Class Books.

4. For the purpose of giving the maturest consideration to these subjects, our Board divided itself into four Committees of six Members each, and each presided over by the President. Each Committee passed under their review the whole of the Minutes and Correspondence of the former Board of Governors upon the several matters thus taken up, and the final recommendations which they had submitted in detail for the sanction of Government. After a mature deliberation in two meetings, resulting in some modifications of the resolutions of the previous Board, each Committee drew up its report, and these reports were further considered by the full Board. The measures, therefore, now submitted incorporate the concurrent views both of the former and present Boards in all main points, and are such as are deemed (independently of other measures of detail which may become the subject of future and early reference) essential towards promoting the success of the Madras University, and establishing it on a firm foundation, and also towards organizing a more general system for the promotion of Education among the people at large.

5. And first as regards the Test Certificates of Educational attainments.

6. Our Board think it superfluous to recapitulate the reasons which in the copious communications from the former Board are set forth in support of the principle of this measure, or to explain again those rules of detail on which the examinations and the issuing Test Certificates are proposed to be founded. Those reasons and explanations are to be found at large in Appendix H. to the first Annual Report and certain revised rules (which have met with the sanction of the Supreme Government) are to be seen in Appendix E. to the second Annual Report. The letter of the former Board of Govern-

ors of 6th June 1848, forwarding these rules as still further revised, contains their latest views on this subject. Our Board have adopted (with the modifications about to be noticed) these latest revised rules (which are appended to this letter) and we earnestly recommend them for the approbation of Government.

7. It may be observed by Government that in the Test Rules now finally submitted, our Board have omitted one of the former Rules, which provided that Proficients of the High School should (upon the credit of that degree) be exempted from any further examination, and be classed with those who may obtain a *Superior Test*.

8. Further modifications of the Rules are to the following effect.

9. That in the requisitions for a *General* Test Qualification, a knowledge of the Globes, and of the extraction of the square and cubic roots be omitted. But that every General Test Candidate should be indispensably required to possess a grammatical knowledge of one Vernacular language, and be able to write a fair hand both in English and in one Vernacular language.

10. That for the Superior *Test* Qualification every Candidate should possess a thorough grammatical knowledge of one Vernacular language, to be tested by construing a parsing from an approved work, in addition to the essay already prescribed, and that he be able to write a fair hand, both in English and in one Vernacular language.

11. Our Board particularly desire to submit to the attention of Government our unanimous opinion as to the expediency of the employment of *paid* public Examiners, as recommended in the former Board's letter of 8th September, 1842, except that we consider that the holding examinations *half* yearly will be sufficiently frequent for the present. We desire to submit the choice of examiners altogether to such course as Government may see fit to take, without naming any.

12. We have judged it fitting to acquaint Government that on this subject of Test Certificates our Board are not unanimous on one point. Out of 14 members who have voted, ten are for retaining the sixth and subsequent rules, while four are in favour of omitting them, and for leaving Heads of Offices unshackled as regards admission of Candidates for employment, substituting a rule to the

effect that lists of all Qualified Candidates should be published periodically in the *Gazette*.

13. *Secondly*.—As to the organization of *Primary* and Provincial Seminaries.

14. Hitherto no Schools of a Primary or Elementary quality have been founded under the auspices of Government, and it is now, first, that measures with a view to the elementary education of the masses, have been entrusted to our Board's consideration. We are of opinion that the establishment of such Seminaries is highly expedient, not only with special reference to the community at large and to the peculiar wants and claims of the people of the Provinces, but also in reference to the supply of competent scholars to enter on a career of superior education in the High School and (eventual) Collegiate Department of the Madras University. For these comprehensive objects our Board unanimously recommend the foundation of Primary Schools both at the Presidency itself and in the Provinces.

15. One Primary School is all that our Board would in the first instance recommend at the Presidency itself. We would recommend four at least to be organized in the Provinces in the first instance, commencing with those four Collectorates in which the former Board in their letter of 15th September, 1842, recommend Provincial High Schools to be founded ; viz., Malabar, Bellary, Tanjore, and Masulipatam. The Board would have been disposed to recommend a larger number to be immediately founded, but that we shall perhaps find a difficulty in procuring masters enough, and we would moreover desire to proceed gradually, so as to profit by the experience which the organization and management of these first four schools will afford. We should desire also to fix the establishment of these Seminaries in localities where no other schools exist, or where any such may be obviously inadequate to the wants of the population.

16. Our Board would also desire to found one or more Provincial *High* Schools in any of the above Collectorates, in which a sufficient number of Scholars may be found adequately advanced to enter a High School, or as soon as such competent Scholars may be raised in the Primary Schools, or otherwise ; and in organizing such High Schools, our Board would desire to adopt the principles and the general plan, as recommended by the former Board (vide Appendix

G. to first Annual Report) but the scheme itself as set forth in that Appendix, will require such modifications as more mature consideration, and experience in the management of the Central High School, will suggest.

17. Among those modifications our Board have at once to submit that of the control and periodical reports of *Inspectors*, instead of remitting either the Primary or High Schools of the Provinces to the sole Government of Local Committees. Our Board consider this measure to be absolutely essential. Experience in Bengal has amply shown the futility of any reliance on the efficient government and superintendence by unpaid Local Committees, and the same result has been manifested even in England. Without this corroborative proof our Board would arrive at this conviction from merely considering the multifarious and laborious duties of all functionaries in the Provinces—their dispersion and the continual changes among them. We are nevertheless of opinion that Local Committees are expedient, as greatly influencing the progress and welfare of Educational Institutions and supplying a wholesome check, as well as some degree of useful control over them. We would, however, desire that their duties should be, mainly to meet and consult on matters connected with the Government Educational Institution in their Districts, according as their President should on occasion summon such meetings, and to act (each of the members) as Visitors of those Institutions, and we would propose that the Inspector for any assigned district should be ex-officio a member of each of the Local Committees in the District under his charge.

Vide Review of Public Instruction in Bengal, by Mr. Kerr, pp 22 to 36.

18. Our Board consider that the appointment of one Inspector would be sufficient in the first instance, and that his immediate task should be, in conjunction with the Head Master of each projected school, to found and organize each such Seminary and subsequently to superintend an assigned number of them under the guidance of our Board.

19. Although our Board do not consider it requisite to enter into any discussion, as yet, as to the course of discipline and instruction to be pursued at these Seminaries, we would desire to state our recommendation that in the Primary Schools particular attention should be directed to Vernacular instruction, with a view to the eventual requisition of a thorough grammatical knowledge of one

Vernacular language by all Candidates for admission in the several High Schools; and the Vernacular instruction in the High Schools should be directed to the critical and philological cultivation of those languages, with the special view (independently, of general objects) of training competent Teachers, Translators and Original Authors in the Vernacular languages.

20. *Thirdly.*—Our Board advocate the erection of a suitable structure for the Central Institution in a more appropriate locality. This is a measure that has been urged on the consideration of Government from the first organization of the High School, and the policy of it has been admitted not only by Government, but by the Honorable Court of Directors, as soon as the permanency of that Institution could be safely assumed. Our Board would especially submit to the attention of Government the communication made to them of 22d June 1847, by which it appears that upon the sanction previously given by the Honorable Court to this measure with the above proviso, this Government recommended its immediate adoption at a cost of 50,000 Rupees, the structure to be commenced on a scale commensurate with the comprehensive design of the Institution, and gradually enlarged according to its increasing requisitions.

21. After much inquiry on the most appropriate locality for such a structure, our Board desire to recommend for selection one of three, which we name according to the order of their preference.

1st. The site on which the buildings, commenced for a Penitentiary, stand. A larger space will be desirable than at present included within the surrounding wall, and which appears to be available. A road passing immediately on one side of the wall might be turned without detriment to the public. The ground would be required to be drained, and the level perhaps somewhat raised, but the lowness of the ground would not, as it appears to our Board, form that material objection, which, it is reported, discommends it as a site for a prison. The situation is central, in reference to the population of the Black Town on one side, and of Chintadrapett and Triplicane on the other. Some portion of the present structure could be turned to good account, so as to admit of an almost immediate transfer of the High School; and part of the building might be now, and perhaps permanently, occupied for a Primary School, proposed, as already stated, to be established. There is, however, a

burning ground at no great distance on the North West side, which it appears peculiarly desirable to have removed.

2d. A piece of open ground is situated immediately at the back of the American Presbyterian Chapel, near the river Coum, which might be enlarged by enclosing the unoccupied ground between this piece and up to the rivers brink, and by purchasing (if requisite) some of the adjoining ground on which some buildings stand of no great value. The greater part of this ground, however, is private property.

3d. A vacant piece of ground (belonging to Government) immediately adjoining the Esplanade and near the General Hospital, on the North West side. This spot is of small extent, being between the Esplanade road and the houses of that part of the Black Town in its rear, and it is doubted whether by itself it would be large enough under any arrangement, as certainly a play ground, a tank and offices of various kinds, are most desirable, if not absolutely requisite. If a space in the rear could be purchased, which is occupied by houses of little intrinsic value, it might be made large enough for all essential purposes, and the site on the very borders of the Black Town and at no great distance from other populous localities, has its special recommendations.

22. *Fourthly.*—The improvement of the system of Vernacular instruction. Our Board are of opinion that in the Primary Schools which we have proposed, particular attention should be devoted to Vernacular instruction, with a view to the eventual requisition of a thorough grammatical knowledge of one Vernacular language from all Candidates for admission into the High Schools, and that rewards should be offered for the production of good expositions in the Vernacular languages of standard works suited to the purposes of education.

23. As regards the measures which should be adopted for providing efficient Vernacular Teachers, a difference of opinion exists among the members of the Board. Some of the members, including the President, consider that for the present the recommendations of the Board should be confined to suggesting the adoption of the plan proposed in the Board's letter to Government of the 12th May, 1848, for organizing an improved system of Vernacular instruction by means of passed Proficients of the High School, who should be instructed to direct their attention to perfecting themselves in the

knowledge of their own languages upon the principles upon which languages are taught in Europe, with the view of eventually becoming Vernacular Teachers; while another portion of the Board (being the majority) acquiescing in the principle of the foregoing plan, that persons of superior general qualifications should be trained for the purpose, would at the same time advocate measures of a larger scope, so as to admit of the services of other competent persons as well as scholars of the High School being rendered available for the object proposed; and they would therefore recommend the establishment in the High School of a class of "pupil-teachers" in the Vernacular languages, to be composed of passed Proficients and other scholars of eminence in the Institution, and open to such other persons as may hereafter obtain, at the proposed examinations for educational tests, a certificate of the superior grade, and may be willing to enter the class for the purpose of qualifying themselves as Vernacular Teachers. They would propose that for this class of pupil-teachers a graduated scale of salaries should be established, which should be applicable to all admitted into it, whether scholars of the High School or educated at other institutions, and that the said pupil-teachers should be subjected to periodical examinations, upon the result of which the Board should decide their claims to the several grades of salary which may be eventually sanctioned.

24. These members of the Board are likewise of opinion that a second class of "pupil-teachers" similar to that proposed by them for the preparation of Vernacular Masters, should be at once established in the High School for the purpose of training Schoolmasters in the other branches of teaching.

25. The President, and certain of the other Governors who have concurred with him on this point, have considered that any recommendation for the establishment of such classes as those proposed by the majority of the Board is at present premature, and that the Board are not possessed of sufficient information on the subject to enable them to judge as to its feasibility, and although willing to bring the matter under future consideration, are not at present prepared to recommend the establishment of either of the projected classes.

26. The majority of the Board on the other hand are of opinion that the normal classes proposed by them may be brought into operation at an early date, and have deemed it proper that the measure

should be submitted for the consideration of the Right Honorable the Governor in Council.

27. In laying before Government the views of the Board on the several subjects which have been brought under consideration in this minute, we desire to express our strong conviction of the essential efficiency of the three first of the measures proposed; and although divided in opinion in regard to the scope and extent of our present recommendations to Government in regard to the measures expedient for the improvement of the system of Vernacular instruction, we are all equally alive to their importance.

28. The first and fourth of the measures proposed we consider as immediately, and the second and third as indirectly, promoting the success of the Madras University, and all of them as best conducive to the spread of sound education, through a course of expenditure which is safe in proportion to its being founded on definite rules and principles. Through the Primary Schools the cheap means of appropriate education would be afforded to the lower orders, and through the High School an education of a superior quality would be afforded to the higher and wealthier classes, and also to the poorer scholars who by their talents and diligence might earn their education by their merits and the bounty of endowments. The Test Certificates, we conceive (the majority of the Board advocating the necessity of the guarantee of the 6th Rule) would prove an all-powerful incentive, and not less efficacious in the moral and mental elevation of the people, than in advancing the service of Government.

29. Our Board are unable to lay before the attention of Government at this moment any accurate data of the current expenditure required for carrying out the designs we propose. But it is necessary to mention that it will very far exceed that which at present is appropriated to educational objects, and may ere long reach that authorized in Bombay (which appears to be nearly 150,000 Rupees) although probably for some years to come it would fall short of it. The present expenditure amounts to about 26,000 Rupees per annum. To carry out the objects of the measure now proposed would probably cost upwards of 100,000 per annum, and, if success should attend them, the gradual increase of scholastic institutions would soon considerably exceed that annual expenditure. It becomes therefore a primary consideration with our Board whether we may

look to the supply of adequate funds, as otherwise our labour would be altogether futile.

30. In endeavouring to make a mere proximate estimate, founded in some measure on the outlay of similar establishments in other Presidencies, we should say that the annual expenditure of the High School (if adequately filled, at 500 scholars) would be double the present, say 50,000 Rupees; and if two or more Collegiate Classes were formed, it would amount to perhaps 60,000 Rupees. The establishment of a Provincial High School, receiving at the commencement about 100 scholars, might be set down at an annual cost of 15,000 Rupees per annum, and four Provincial Primary Schools, each receiving about 200 scholars at the commencement, might be calculated to cost 10,000 Rupees per annum each. A Primary School of 500 scholars at the Presidency itself would probably cost about 20,000 Rupees per annum. The salary of a competent Inspector we should hardly set at less than 10,000 Rupees per annum, and the expenditure for Public Examiners (which was heretofore estimated at 7,500 Rupees per annum, when it was proposed that they should examine quarterly) would be probably 4000 Rupees in examining half-yearly. By this very rough and approximate calculation (which we think rather over than under estimated) an expenditure is shown of about 1,50,000 Rupees per annum. But of course for a few years, at all events, it will not amount to so much. It should be observed, however, that the expenditure is not likely to increase in the ratio of the Seminaries founded, particularly as regards those for the higher and wealthier orders, for the advantages of education, as they become more palpably apparent, will soon induce the latter classes to pay for it at something like a proportionate rate.

NOTE.—It may be observed that the late Council of Education calculated the cost of a Provincial School (of the quality of the proposed Primary Schools) at Rs. 9,600 per annum for 300 Boys—to which cost Government did not intimate any objection.

31. But our Board are encouraged to hope that this present proposed annual expenditure will not be greater than existing means would warrant, any more than it would be beyond the expectations of Government. The unexpended accumulations in the Parliamentary Grant of 50,000 Rupees per annum, for so many years, may perhaps amount to 10 lacs and the accumulated Pagoda Funds to a sum little short of that. The mere interest of this sum, together with the current Parliamentary Grant, would suffice for all wants

for several years to come, and it is not too much to expect that hereafter an annual sum might be appropriated for the general objects of education, equal to what, beyond the Parliamentary Grant of 50,000 Rupees, is expended in the Bombay Presidency.

32. On this head our Board wish to add that the cause of education generally might be greatly promoted by the grant of sums *in aid* of any permanent and prospering Institution, without distinction as to religious discipline or tenets, by which system not only would cost be materially lessened, but differences on religious grounds avoided. We do not however enter into any discussion on this topic at present, as it is somewhat foreign to the immediate object of this communication, and the condition of the country does not appear such as to admit of any practical adoption of this course at the present moment.

33. In case these views and designs shall be approved of, we shall proceed to lay before Government in detail the course we would propose to adopt in carrying out the measures suggested, and the specific items of expenditure to be sanctioned, including general rules of discipline and instruction at the Schools, general instructions to the Public Examiners, to the Inspector, and to the Local Committees, and also the amounts of fixed salaries.

MADRAS UNIVERSITY,
2d *July*, 1852.

(Signed) GEORGE NORTON,
President.

Appendix to Minute of the University Board, under date the 2d July, 1852.

Proposed Rules for the Public Examination of Candidates for Public Service.

I. Public Annual Examinations shall be appointed for the purpose of conferring Certificates or Tests of Educational qualifications on Candidates (not being Covenanted Servants) for Offices and employments in the Public Service.

II. Such Tests of qualification shall be of three grades; namely, General Tests, Superior Tests, and Special Tests for particular departments.

III. The qualification for a General Test Certificate shall be as follows:

The Candidate must exhibit a thorough knowledge of the general rules of English Grammar, parse correctly, and correct false Grammar.

He must be able to read with facility and correctness passages of English prose selected from standard authors. He must be competent to pass an examination in some elementary work on moral principles, or if a Christian, in the New Testament. He must know the leading facts in the Histories of England and of India. He must be so far acquainted with Geography as to know the form of the Earth, its great divisions and subdivisions into countries, the names of the capitals of each country, the names and positions of the chief mountains, and the origin and course of the chief rivers. He must be able to delineate Skeleton maps. He must write a fair hand; and this shall be considered an indispensable qualification.

He must have a knowledge of Arithmetic, including Addition, Subtraction, Multiplication, Division, Reduction, Rules of Proportion, Fractions, Vulgar and Decimal, and Practice.

He must know the elements of Astronomy.

He must possess a grammatical knowledge of some one Vernacular language and be able to translate therefrom into English and from English into some one Vernacular language.

The qualification for a Superior Test shall be as follows:

The Candidate must be able to explain passages in prose and verse selected from standard authors.

He must be competent to pass an examination in some work in moral Philosophy, or in the Scriptures, if a Christian.

He must know the leading facts in Universal History, with special reference to the Histories of Greece, Rome, India, England and Modern Europe.

He must have a knowledge of Mathematics including Algebra, Mensuration of Heights and Distances, the six first books of Euclid, Plane and Spherical Trigonometry and Conic Sections.

He must have a knowledge of Astronomy and the elements of any two of the following sciences, Mechanics, Hydrostatics, Pneumatics, Optics and Chemistry.

He must compose fair essays in English and also in some one Vernacular language, and must possess a thorough grammatical

knowledge of one Vernacular language, to be tested by construing and parsing from an approved Vernacular work.

The qualifications for a Special Test Certificate shall be as follows:

The Candidate must produce a certificate of a General or of a Superior Test.

In the Judicial Department.

He must be acquainted with the elements of Public Law.

He must be acquainted with the general principles of Hindoo and Mahomedan Law.

He must have a general knowledge of the Acts and Regulations of Government and the Vernacular form in Judicial procedure.

In the Revenue Department.

He must be acquainted with the general Principles of Political Economy.

He must have a general acquaintance with the statistics and resources of India.

He must have a general knowledge of the Acts and Regulations of Government and of the Vernacular forms in use in the Revenue Department.

In the Engineering Department.

He must have a knowledge of the elements of industrial Mechanics, Geometry and Mensuration.

He must be thoroughly versed in linear drawing and perspective.

IV. The following rules shall be observed in the examination of Candidates.

Lists shall be from time to time prepared and published of the subjects of examination appropriate to each quality of Test, and of one or more books appropriate to each subject, in reference to which Books the examination shall proceed.

The Candidates shall be at liberty to name any book when several are offered in such lists for choice. Such lists shall be published a year before the holding each examination.

Sets of questions in the various branches of study according to the quality of Test competed for, shall be prepared; and the days on which examinations shall be held shall be fixed and published within a reasonable time beforehand.

The Candidates shall be assembled for the purpose of composing essays and answering written questions, in one room without books, papers, or references of any kind.

They shall not be allowed to communicate with each other during the time of examination.

They shall be required to answer the written questions, and write the appointed essays, without any assistance whatever. Any attempt at unfair means shall subject the offender to exclusion for ever from examination.

An uniform standard of value for each written question shall be fixed according to its intrinsic importance.

A perfectly correct and complete answer will obtain the full number of marks attached to the question; an imperfect answer will obtain a part only of the full number in proportion to its approximation to correctness and completeness.

At least 50 per cent. of the aggregate number of marks attached to an entire set of questions will be necessary to entitle a Candidate to his Test Certificate.

All answers must be written on one side only of the paper; and only one answer is to be written on any piece of paper.

At the close of each day's examination, each Candidate shall deliver to the person officiating in such behalf his answers or essays, signed by himself.

The place of each successful Candidate shall be determined by the relative merit of his examination.

A Candidate who shall fail to prove his qualification for the Test competed for shall not be permitted to present himself for examination more than three times for the same Test.

V. The President and Governors of the Madras University, or the Council of Education as the case may be, shall issue Test Certificates of Educational qualifications in a regular form, according to the quality of the respective Tests, and may note upon the Test Certificate any distinguished merit.

VI. The Test Certificate of educational qualifications shall not constitute an absolute title to any Government employment, since qualifications for Office must equally depend on experience and aptitude for business and integrity; but persons producing Test Certificates shall be entitled to a preference to any vacant Office or employment under Government held by Uncovenanted Servants,

over all other Candidates not having such Test Certificates and who may not possess superior qualifications in other respects and upon the whole.

VII. All persons producing Superior Test Certificates shall have a preference in selection for the Public Service over other Candidates who may have only attained a General Test Certificate.

VIII. Special attention shall be due to the order of merit or scale of honor, in which Candidates may have been ranked.

IX. All persons producing a Special Test Certificate shall be entitled to a preference in those departments respectively of the Public Service to which their Special Test Certificates may apply.

X. All heads of Departments and Offices and others having the power of selecting the appointments in the Public Service, are required to take all expedient measures, when vacancies arise, for facilitating the applications of Candidates qualified by educational Test Certificates.

XI. Nothing in these Rules contained shall preclude Heads of Departments or others from recommending to the sanction of Government the promotion of any persons holding appointments at the date of those Rules to any Offices becoming vacant in preference to those producing Test Certificates upon special grounds to be stated on their behalf.

(Signed) A. J. ARBUTHNOT,
Secretary.

APPENDIX B.

MADRAS UNIVERSITY, *30th November*, 1852.

FROM

A. J. ARBUTHNOT, ESQ.
Secretary to the Madras University.

To

THE COLLECTOR OF

CIRCULAR.

SIR,

1. The Governors of the Madras University having for some time past been engaged in considering the best means of extending education throughout the provinces of this Presidency, have directed me to request that you will favor them with such information as it may be in your power to afford, in regard to the educational institutions at present existing in the district under your charge, and the extent of co-operation on the part of the Community, both European and Native, which any measures for the diffusion of education, would be likely to receive.

2. The question is one of great national importance, and at the same time is encompassed by difficulties which cannot be readily overcome, and although the Board are satisfied, that, without the direct interference of Government by the establishment of Government schools for the instruction of the Native community in the higher branches of Literature and Science, no marked improvement can be expected to ensue, they are equally alive to the fact, that for the establishment of any efficient system of national education the means available to the Government are wholly inadequate, without a zealous co-operation on the part of the people themselves.

3. Impressed by these views the University Board have recently recommended to Government that sanction should be granted for the organization of Provincial High Schools at certain of the principal towns in the Mofussil, at which the educational institutions already existing may have furnished a supply of scholars qualified to enter upon the higher course of instruction, which it will be the object of these High Schools to impart, and they have also suggested the establishment of Primary Schools in such populous localities as may be at present altogether wanting in the means of elementary instruction, of an efficient kind.

4. As however, has already been observed, the funds which would be required for the establishment of any adequate number of such institutions, supported entirely at the Government expense, would be more than could be afforded from the resources of the state, unassisted by private contributions, and it has therefore appeared to the Board, on a mature consideration of the subject in all its bearings, that with a view to place upon a more efficient footing the schools which have already sprung up at various places, and to encourage the establishment of similar institutions elsewhere, the system of a "Grant-in-Aid," which has already been found to operate most successfully in Great Britain, might with advantage be adopted in this country, and would ere long be attended with the most beneficial results.

5. The leading features of the Grant-in-Aid system are as follows:—The assistance of Government is granted in aid of local efforts, by grants of money in augmentation of subscriptions raised on the spot; the grants being invariably made for certain specific purposes, such as the erection of School Houses, the salaries of Schoolmasters or Mistresses, the erection of houses for Schoolmasters, or the supply of School furniture or books, subject to the condition that a certain proportion of the estimated expenditure shall have been previously subscribed or guaranteed by the residents of the locality, and that the Schools shall be always open to the inspection of Government Inspectors.

6. It is also an invariable rule that before any grant is made, the School buildings and the ground upon which they are erected, shall be permanently assigned over in trust for educational purposes, that the buildings shall be of certain dimensions and form, that the School furniture shall be of the prescribed description, that the books used

in the School shall be such as are approved by the Committee of the Privy Council on education, and in those cases in which the grant is applied in augmentation of the salary of the Schoolmaster, the Master is at any time subject to an examination as to his attainments by the Government Inspector, upon whose report it is determined whether the grant shall be continued, or in the event of the report being favorable, whether the salary shall be increased.

7. There are other arrangements carried out under the direction of the Committee of the Council on Education for providing efficient Teachers by the establishment of Normal Schools and of classes of Pupil Teachers, which the Board consider might with advantage be introduced in this country, but to which at present it is unnecessary to advert.

8. One of the main advantages of the system, and one which renders it peculiarly applicable to the existing state of Society in India, is the avoidance of all difficulties in regard to religion ; the grant being available for all Schools, of whatever denomination, provided the instruction imparted be of an efficient character.

9. The University Board have already expressed to Government their favorable opinion of the plan referred to, and in order to enable them to furnish a detailed report as to the extent to which it might be rendered available for the extension of education among the Native population, I have been directed to address the principal Officers of Government in the several districts under this Presidency on the subject, and to request that they will furnish the Board with such information as they may be able to afford in regard to the state of education in their respective districts ; stating whether there are any and what Schools at present in existence, to which the Government aid might with propriety be granted, and the proprietors of which would be willing to accept it on the conditions above specified, and also to what extent the inhabitants of the principal towns whether European or Native, would be willing to co-operate with the Government by subscribing towards the establishment of new Schools upon similar principles.

10. I am directed to enclose two forms of Tabular Statements in which the information now called for in regard to the existing state of education in your District may be conveniently supplied.

11. It is the particular desire of the Government, with whose sanc-

tion this letter has been addressed to you, that your enquiries should be conducted in such a manner as not to hold out any promise or pledge of pecuniary assistance from the state.

I have the honor to be,

Sir,

Your most obedient Servant,

MADRAS UNIVERSITY,
30*th November*, 1852.

A. J. ARBUTHNOT,
Secretary.

No I.

Tabular Statement shewing the state of Scholastic Education in the District of _____

1	2	3	4	5	6	7	8
Number of Schools in the District.	Number of Free Schools.	Number of Schools in which fees are charged for instruction and the amount of fees.	Number established by Missionary or other bodies.	Number established by Natives.	Number of Pupils under Sholastic instruction in the District and proportion of their number to the number of teachable youths.	Number of Schools in which English is taught.	Number of Schools in which the Vernacular languages only are taught.

No. II.

Statement shewing the constitution of and the nature of the instruction imparted in the school of _____ in the District of _____

	Name of the School and of its founder, date of its establishment and amount of rent paid for the school building, or if the property of the proprietor of the school, the cost of purchase, size of building, whether or not well fitted for educational purposes and whether entirely reserved for those purposes or not.	1
	Subjects and Languages taught.	2
	Number of classes and of Scholars in each and also in each language taught.	3
	Subjects and languages studied and books in use in each class.	4
	Rates of fees paid by the scholars in the several classes. N. B.—If a free school, it should be so stated in this column.	5
	Number and names of Masters whether Europeans or Natives.	6
	Where educated and are they solely employed in education.	7
	Their respective salaries and qualifications.	8
	From what classes of Society are the pupils in the school generally.	9
	Is religious instruction given, and if so, is attendance at it compulsory or optional.	10
	In what estimation is the school held by the people generally.	11
	Is the instruction imparted sound, and is the school deserving of the aid of Government and are the proprietors or proprietor desirous of a Grant-in-Aid on the conditions advertsed to in the Board's letter.	12

APPENDIX C.

MADRAS UNIVERSITY, *10th December*, 1852.

No. 15.

FROM

A. J. ARBUTHNOT, ESQ.
Secretary to the Madras University.

To

SIR H. C. MONTGOMERY, BART.
Chief Secretary to Government,
Fort Saint George.

SIR,

1. I am directed by the Governors of the Madras University to acknowledge the receipt of the Extracts from the Minutes of Consultation, under date the 22d June and 1st November, 1852, conveying the orders of Government on the several Educational measures which have recently been recommended by the University Board.

2. In conformity with the instructions contained in para. 18 of the latter of the orders above referred to, the Board have prepared a revised plan and estimate for the expenditure of the sum of one Lac of Rupees, which it is stated will probably be available for the purposes of education in this Presidency, and I am directed to submit for the consideration of Government the following statement of the measures to which the Board consider that the Funds available may be most beneficially applied.

3. These measures may be conveniently classed under three heads.

1st. The arrangements connected with the Presidency Institution.

2d. The establishment of Government Schools in the Provinces.

3d. The operations of the proposed Grant-in-Aid system.

4. *The Presidency Institution.*—Under the sanction conveyed in the 6th para. of the order of Government of the 1st instant, the Board have at once proceeded to organize a Primary School in connection with the High School and as a temporary arrangement upon the Premises at present occupied by that Institution. It is the intention of the Board to place Mr. McLeish at present 3d Tutor in the High School, at the head of the proposed Primary School upon the same salary as he now receives, viz., Rupees 175 per mensem. Under Mr. McLeish two Native English Teachers will be appointed upon salaries of Rupees 50 each and two Moonshees for the Vernacular Department upon salaries of Rupees 35 each per mensem.

5. The following is an estimate of the monthly cost of the Primary School :—

	Rs.
Head Master's Salary, - - - - - - - -	175
Two English Teachers (Natives) on salaries of Rupees 50 each, - - - - - - - - -	100
Two Moonshees on salaries of Rupees 35 each, -	70
Contingent charges and servants, - - - - -	50
Total Rupees..	395
Deduct amount of School Fees estimating the number of pupils at 150 paying a fee of one Rupee per mensem, - - - - - - - - - - -	150
Net cost of the School..	245

6. The Board have estimated the number of pupils likely to resort to the Primary School at 150, which is as much as the present building will be capable of accommodating, in addition to the increased number of scholars in the High School, which the reduction of the School Fee to two Rupees per mensem will be likely to attract. Should the number of pupils attending the Primary School prove to be smaller than is at present anticipated, the services of a third English Teacher will not be required ; so that the net cost of the school may safely be estimated at not more than Rupees 250 per

mensem. For the first year, indeed, the cost of the School establishment will be smaller, as the Board purpose placing the Assistant English Teachers upon reduced salaries of Rupees 35 per month on entrance, and until they shall have satisfied the Board that they are well fitted for their situations, when their salaries will be raised to the sums specified in the foregoing estimate.

7. The scheme of English studies proposed for the Primary School is as follows :—

Classes.	*Subjects.*
1st or Lowest Class.....	Spelling, Reading, Numeration.
2d Class	Spelling, Reading, Arithmetic, Grammar, and Writing.
3d Class.....	Spelling, Reading, Arithmetic, Grammar, Geography, and Writing.

8. The above scheme involves the division of the Primary School into three classes so far as regards the English studies, which with reference to the elementary nature of the instruction proposed to be imparted, appears to the Board to be a sufficient number ; but as 30 or 35 boys are as many as one teacher would be able to instruct at the same time, it will probably be necessary to form the classes into divisions, two of which may be instructed by the same teacher in the course of the day.

9. In the Vernacular department two classes will probably be sufficient, but the details of the course of instruction in this department will be arranged in connexion with the general system of Vernacular instruction in the Institution, which is now under the Board's revision, and will form the subject of a future communication.

10. *High School.*—In reviewing the course of study at present pursued in the High School, the attention of the Board has been attracted to the nature of the studies which for some years past have

been pursued in the higher classes. The subject studied in these classes, as has been on several occasions remarked by the former Board, are of a character which are usually reserved for a collegiate course of instruction, and in the other Presidencies are confined to the collegiate departments of the several Educational Institutions It appears to the Board that by having collegiate work done under the name of school work, not only is a considerable stimulus taken away both from the teachers and pupils, but the education bestowed at the Institution is naturally, though erroneously, supposed by those unacquainted with the system, to be inferior to that imparted in the collegiate Institutions at Agra, Delhi, and elsewhere. It may also be argued in favor of the establishment of a collegiate department in the University, that it would furnish an inducement to the more advanced scholars to continue their studies for at all events one year longer than is their practice at present; and under the altered arrangements which the establishment of this department would involve, the attention of each of the Professors would be confined to a set of kindred subjects, instead of being, as at present, devoted to six or eight different subjects, and their respective efficiency (it is confidently expected) would in consequence be considerably increased.

11. Impressed by these considerations the Board have resolved on recommending to Government that they may be permitted to organize a set of collegiate classes in the several subjects at present studied in the higher classes of the High School, with the addition of Moral Philosophy and of General Jurisprudence and Law; and in submitting this recommendation for the consideration of Government they trust that it will not be deemed obnoxious to the objections declared in the 10th and following paras. of the Extract from the Minutes of Consultation, under date the 22d June last, to the establishment of a collegiate department, which would appear to have exclusive reference to the two Professional classes, viz. those of Medicine and Civil Engineering, which have been proposed on former occasions by the University Board.

12. In forming therefore their plans and estimates for placing the Presidency Institution upon an efficient footing, the Board contemplate the division of the Institution into three departments, viz.: a Primary School, a High School or Grammar School, and Collegiate Department.

13. The scheme of study arranged for the Primary School has been already stated. That proposed for the High School upon its new footing will commence at the point at which the course laid down for the Primary School terminates, and will embrace the studies at present pursued in the High School from the lower rank of the 1st class to the upper rank of the 3d class or nearly so, including Spelling, Grammar, Arithmetic, History, Geography, Writing from Dictation, Euclid, Algebra, English Composition and Literature, Map-drawing and the elements of Book-keeping or Commercial Arithmetic, and leaving the subjects studied in the present 4th class and some of those belonging to the upper rank of the 3d class to be carried on in the proposed Collegiate Department.

14. The subjects proposed to be reserved for the Collegiate Department are as follows :—

Mathematics,
Physical Science,
History,
Political Economy,
Mental and Moral Philosophy,
English Literature, and
English Composition,

and in addition to the foregoing subjects, all of which, except Moral Philosophy, are at present taught in the senior classes of the High School, the Board consider it to be extremely desirable that a Professor should be appointed in General Jurisprudence and the Laws of India.

15. For the above course of study the services of four Professors would be required, two of whom are already available in the persons of the Head Master and Second Master of the present High School. In the event of these arrangements being sanctioned, the Board will adopt measures for securing the services of a 3d Professor with as little delay as possible, and for the duties of the Law Professor a competent person might be selected from among the Barristers of the Supreme Court.

16. Should the foregoing arrangements be approved of, the following would be the constitution of the Collegiate Staff.

E. B. Powell, Esq.....Principal of the University and Professor of Mathematics and Phy-

sical Science, with a general supervision of the whole Institution.

A. GORDON, ESQ.....Professor of History, Political Economy, and of Mental and Moral Philosophy.

A THIRD PROFESSOR.....Professor of English Literature and English Composition.

A FOURTH PROFESSOR.....Professor of Jurisprudence and of the Laws of India.

17. It seems unnecessary to advert more particularly to the subjects of study entered under the three first heads of the foregoing scheme, all of them except Moral Philosophy being taught more or less in the present Institution, and all of them being admitted by the consent of the Boards of Education at the three Presidencies, to be well adapted for the system of Education, which it has been the policy of the Government to adopt.

18. In regard however to the 4th subject in which it is proposed that a Professorship should be forwarded, viz. that of Jurisprudence and the Laws of India, it may be proper to offer a few remarks.

19. The Government are aware that no means of public instruction in the science of Law are at present available in this Presidency, and as the Board understand that the establishment of Law classes in the Educational Institutions of Government has been recently advocated by the Judges of the Sudder Court, the Governors of the University have deemed the present to be a favorable opportunity for recommending that the want should be supplied.

20. The Board find on reference to the Reports on Education in Bengal that the necessity of affording to the alumni of the Government Institutions, the means of making themselves acquainted with the Laws of their country and with the general principles of Jurisprudence has long been acknowledged in that Presidency, and that so far back as 1840 the General Committee of Instruction in Bengal were engaged in inquiring into the best means of compiling a Manual of Legal Instruction for the use of the Institution under their superintendence.

See Reports for 1840-41, and 1841 42, page 29.

21. In a Report submitted to Government three years later the subject of legal instruction in the Government Institution is advert-

See Report for 1842-43, pages 17, 18, 19.

ed to at some length, and a proposition referred to for the appointment of a Professor of the Laws and Regulations—one half of whose salary was to be paid by Government and one half from the Educational Funds, upon the understanding that the lectures should be available for the Junior Civil servants prosecuting their studies in the College of Fort William.

22. It appears that shortly afterwards Mr. Lyall, the Advocate General at Calcutta, offered his services to Government to deliver Lectures on Jurisprudence, in the various forms in which it is administered in India. The offer was accepted and a course of Lectures was delivered in November and December, 1843, and in the early months of 1844.

23. A copy of Mr. Lyall's Report on the course of Lectures delivered by him, and on the examination of the Students, is inserted in the General Report for 1843-44, at pp. 6, 7, 8, and 9. Mr. Lyall's death in 1844 prevented the continuance of the Lectures, and no one was appointed to resume them until the present year, when, it appears from a note to page 62 of Mr. Kerr's Review of Public Instruction in Bengal, that a Professor of Law has again been appointed to the Hindu College of Calcutta. The Board learn from the public prints that a similar Professorship is about to be established in the Elphinstone Institution at Bombay by means of subscriptions contributed by the Native community in honor of Sir Erskine Perry.

24. If then the importance of the subject, as one in which the means of instruction should be made available for the Natives of this Presidency, be admitted, it remains to be considered in what manner it may best be carried out, if introduced into the Collegiate Department proposed to be established in the University.

25. It is very justly observed by Mr. Cameron, in a Minute recorded by him in 1843, when President of the Bengal Council of Education, that a Professor of the Laws and Regulations of India "ought in truth to be a Professor of Jurisprudence," that "his Lectures ought to show what are the general principles and distinctions which in some form or other are to be found in every system of positive Law, and then to bring to view the particular form in which those principles and distinctions present themselves in the different systems in British India."

26. It will of course be most important to the success of the protected class to obtain the services of a well qualified Professor; one who may be fully competent by his familiarity with the rules and principles of General Jurisprudence to impart to the students that knowledge which a mere study of the rules laid down in existing ordinances without reference to the principles on which they are based, cannot be expected to supply, and at the same time may be sufficiently well acquainted with the Acts and Regulations of the Indian Legislature and with the rules of practice and procedure observed in the Company's Courts, to enable him to illustrate the application of those general principles above referred to, to the practical operation of the positive enactments in force. It would also be desirable that he should have some knowledge of the rules of the Hindu and Mahomedan Laws, and as a guarantee to the public that the Professor is a person who has himself gone through a professional training, it would obviously be advisable to engage the services of one of the Barristers of the Supreme Court, provided one can be found willing to undertake the office, in whom the several requisites above specified may be found combined.

27. The subjects which the course of Lectures should embrace will require to be decided on hereafter by the Board in communication with the Professor, and it will be advisable to consult on the subject the Judges of the Sudder Court.

28. It would probably be desirable that attendance in the Law class should be optional with the scholars in the Collegiate Department, and that the class should further be open to persons not attached to the Institution, who may be desirous of attending the Lectures of the Law Professor, and who may prove on examination by the Principal of the Institution to be sufficiently educated in other respects, to enable them to profit by the Law Professor's Lectures. In the event of the scheme being approved of, it will be for the Government hereafter to decide as to the privileges in regard to employment in the Judicial Department which the certificates of the Professor shall be considered to confer.

29. On the score of expense the Board do not anticipate that any difficulties will be found to exist in reference to the formation of the proposed Collegiate Department. The expenses of the Presidency Institution upon the footing on which the Board propose to place it,

will certainly be considerably increased, and as will be shown presently, will fall short but little of a moiety of the funds at present available for educational purposes. It appears to the Board however that the additional items of expenditure which it is proposed to incur, must necessarily be incurred, whether the Collegiate classes be sanctioned, or the School be continued in its present form; as the increase which may be expected to take place in point of number in the School department, in consequence of the reduction of the School Fee, together with the establishment of a Primary School in connexion with the High School, will so much increase the demands upon the time of the Head of the Institution for purposes of superintendence, as to render absolutely necessary the appointment of an additional teacher to assist in the instruction of the higher classes; and if the expediency of adding the study of law to those already pursued in the Institution be recognized by Government, the expense entailed by the appointment of a Professor, will of course be the same, whether he be attached to the High School in its present form, or to a Collegiate Department established in connexion with it.

30. In para. 15 of the Extract from the Minutes of Consultation of the 1st Ultimo, the Government have sanctioned the formation of Normal classes, English and Vernacular. The Board propose to entrust the instruction of the English Class of Pupil Teachers to Mr. Gordon, the present 2d Master of the High School, who has had some experience in England in the system of Normal Training; and as they consider Mr. Gordon's present salary of Rupees 350 per mensem to be very inadequate with reference to the duties he is called upon to perform, they beg to recommend that it may be increased to Rupees 500 per mensem. They are engaged in preparing detailed schemes for the formation of the two Normal Classes which have been sanctioned, and have decided that the expenditure required for the English Normal Class will not exceed Rupees 2000 per annum, while for the Vernacular Department the increased expenditure recommended in the Board's letter of the 12th May, 1848, involving eventually an annual expenditure on this account of Rupees 8,520 and an annual increase on the present establishment of Rupees 5,220 will be amply sufficient.

31. The Board would propose that the salary of the 3d Professor

whose appointment they have recommended in the 16th para. of this letter, should be fixed at Rupees 350 per mensem.

32. The only remaining charge in connexion with the Presidency Establishment is that which will be involved in the appointment of paid Examiners, and this the Board are of opinion may be estimated at Rupees 2000 per annum, one Public Examination in the year being as much as will be required for several years to come.

33. According to the foregoing plan the annual expenditure on account of the Presidency Institution may be estimated as follows :—

Average expenditure on account of the High School with its present Establishment, about,.....	27,000
Net cost of a Primary School,.....	3,000
Salary of a 3d Professor for the proposed Collegiate Department,.....	4,200
Addition to Mr. Gordon's salary,.....	1,800
Salary of Law Professor,.....	2,400
English Normal classes,.....	2,000
Eventual addition to Vernacular Establishment,....	5,230
Estimated loss to Government by the reduction of the School fee,.....	1,500
Salary of the Secretary (which has not hitherto been included in the accounts of the Institution,).....	3,000
Annual charge on account of paid Examiners,..	2,000
Total Rupees...	52,120

34. From the above amount the cost of House rent, which at present amounts to Rupees 2,520, will have to be deducted when the proposed building shall have been erected ; so that the annual cost of the Presidency Institution for many years to come will not be likely to exceed Rupees 50,000.

35. In deference to the opinion of Government the Board have abstained from urging the establishment of classes in the sciences of Medicine or of Civil Engineering, but they direct me to state, that while recognising the expediency of having these sciences taught in a more practical and extended manner than the University course of instruction would admit of, they trust that at some future period it

may be deemed proper to found Lectureships in branches of Natural History such as Botany, Geology, and Mineralogy, as well as in popular Chemistry, in the Institution under their charge.

36. *Provincial Schools.*—Of the sum remaining available for educational disbursements the Board are of opinion that Rupees 30,000 should be set apart for the establishment of provincial Schools, five of which ⁂ would be desirable to establish so soon as competent Masters can be obtained. In referring to this subject in para. 2 of the Extract from the Minutes of Consultation of the 22d June last, the Government have named sum of Rupees 300 as the estimated monthly expenditure of each proposed School. This of course pre-supposes the exclusive use of Native Agency, as the salaries of competent English Masters would amount very nearly to the full sum allowed for the entire expenditure of each School. It appears however to the Board that for several years to come it will be impossible to obtain Native Masters possessed of the requisite qualifications for superintending and conducting the operations of a Government School. In point of intellectual qualifications many Natives might probably be found competent for the duty, but when the Board consider that the chief object of every system of education should be the moral improvement of the rising generation, they are satisfied that the moral condition of the Native community is not such as to justify the expectation that that object will be attained by the establishment of schools presided over by Native Masters. The number of Government Schools throughout the provinces under the most favorable circumstances must be comparatively small, and it is much to be desired that the few which may be established should be of an efficient character; and to secure this end it appears to the Board to be essential that the Head Masters should be Europeans, whose salaries could not be estimated at less than 300 Rupees per mensem. The Board believe that for this sum the services of most efficient Masters, educated at the Training Schools which for some years past have been in operation in England, might be secured. It would clearly be a most important desideratum that the Masters of the Provincial Schools should be acquainted with the Vernacular language of the District in which their Schools are located, and to ensure the early attainment of this qualification the Board would propose that a portion of the salary, say Rupees 50 per mensem, should be withheld, until the Master should be pro-

nounced qualified to communicate freely with his pupils in their Native tongue.

37. The cost of each school might then be estimated as follows:—

	Rups.
Head Master,	300
Second Master,	100
Third Master,	50
Vernacular Teacher,	50
Assistant Vernacular Teacher,	25
House Rent,	35
Contingent charges and Servants,	50
	610
Deduct probable amount of fees at 1 Rupee per mensem for each pupil,	160
	450
	12
	5,400

1 Bellary.
2 Calicut.
3 Vizagapatam.
4 Combaconum.
5 Cuddalore.

38. Upon the foregoing plan Provincial Schools might be founded at the Stations noted in the margin, at a cost of Rupees 27,000, leaving Rupees 3000 per annum for any contingencies that might occur.

39. The nature of the instruction to be imparted in these schools must depend in a great measure upon the extent to which education may have advanced at the stations at which they are located; but it appears to the Board that at most of the new schools on their first establishment the course of tuition should be confined to the following subjects;—Reading, Writing, Arithmetic, Geography, English and Indian History, Euclid, Book I., and Algebra to the end of Quadratic Equations, and the Vernacular language of the District, of which a thorough knowledge should be enforced.

40. *Grant-in-Aid System.*—The last topic to which it is necessary to advert is the introduction of the Grant-in-Aid system, which the Board learn from the orders above recorded has been recommended for the sanction of the Hon'ble Court. The sum available

for this purpose, after deducting the estimated expenditure on account of the Presidency Institution and the establishment of Provincial Schools, will be Rupees 20,000 per annum; and on receiving replies to the Circular letter, which with the permission of Government has been addressed to the several Collectors in the Provinces, the Board will be prepared to submit a detailed statement of the manner in which the sum available may be most advantageously applied.

41. In the foregoing plan and estimates the Board have restricted themselves to an estimated expenditure of one Lac of Rupees per annum in conformity with the instructions conveyed in the 18th para. of the Extract from the Minutes of Consultation under date the 1st ultimo, and have been compelled to omit therefrom any estimate on account of Government Inspectors, the funds available being insufficient to meet the additional charge which the appointment of one or more of these officers would entail.

42. In conclusion, I am directed to request that the Board may be favoured with early orders on the several propositions submitted by them in this letter for the improvement of the Presidency Institution, and especially in regard to the proposed Collegiate classes; so that, in the event of their being approved of, early intimation may be afforded to those scholars of the higher classes who may now be intending to leave the Institution, and most of whom, to the number of 25 at the least, will remain, should the Collegiate Department be organised from the commencement of the ensuing year.

43. A return prepared by the Head Master of the High School, showing the number of scholars who have up to the present time attained a very creditable standard of proficiency, and the manner in which they have been provided for, as required in para. 10 of the Extract Minutes of Consultation dated 1st ultimo, is annexed.

I have the honor to be,

Sir,

Your most obedient Servant,

(Signed) A. J. ARBUTHNOT,

Secretary.

MADRAS UNIVERSITY,
10*th December*, 1852.

List of past Students of the High-School possessing either distinguished or very creditable attainments, with a Statement of the posts now occupied ~~with~~ by them.

List of Proficients of the High-School.

No	Names.	Degree.	Employment.	Remarks.
1	C. Runganathum Shastry, - -	1st Proficient	Head Interpreter, Supreme Court.	
2	P. Thenathyaloo Naidoo, - -	do.	Second Judge's Clerk, Small Cause Court.	
3	T. Madavah Row, - - -	do.	Tutor to the young Princes of Travancore.	
4	Mr. B. Lovery, - - - -	do	Principal of Pacheappah's School.	
5	A. Sashiah Shastry, - - -	do.	Thasildar at Masulipatam.	This Proficient obtained the first Government reward of 300 Rupees given by the Council of Education; also Pacheappah's Vernacular Prizes of 1846-47, for Tamil Expositions of Arnold's 3d Lecture on Modern History, and 10th and 11th of Thornton's Chaps. on British India; and also Lord Elphinstone's Prize for an English Essay in 1847.
6	V. Ramanoojah Charry, - -	do.	No Employment.	
7	C. Runga Charry, - - - -	do.	Translator to the Collector of Chingleput.	This Proficient obtained Lord Elphinstone's Prize for an English Essay in 1849.
8	V. Sadogopah Charry, - -	2d do.	Deputy Translator, Sudr Court.	The Pacheappah's Vernacular Prize for 1844, was shared between these three Proficients for Expositions of Hume's Essay on Commerce and Whately's Money Matters.
9	M. Sadaseva Pillay, - - -	do.	Translator, Collector's Cutcherry, Cuddalore.	
10	V. Ramyengar, - - - -	do.	Head Jevab Neviss, Nellore.	In addition to the above M. Sadaseva Pillay obtained the Pacheappah's Vernacular

No.	Names	Degree.	Employment.	Remarks
				Prize of 1845, for a Tamil Exposition of Abercrombie's culture and discipline of the mind.
11	G. Chengunnah, Sastry, - -	2d Proficient.	Deputy Accountant, Chingleput.	This Proficient obtained the 3d Government reward of 200 Rupees given by the Council of Education in 1847, also Pacheappah's Vernacular Prize of 1848 for a Teloogoo Exposition of Chapter X. Vol. 1st Murray's India; and also the Certificate of a College Moonshee.
12	W. Sashachellum Naidoo, - -	do.	Head Judge's Clerk, Small Cause Court.	
13	G. Rajagopaul Naidoo, - - -	do.	2d Master, Pacheappah's School.	
14	A. Ramchunder Row, - -	do.	Mahratta Translator, Revenue Board.	This Proficient obtained Pacheappah's Vernacular Prize for a Mahratta Exposition of Chapter II. Vol. 2d, Murray's India in 1849.
15	T. Vencatacharry, - - - -	do.	Maharatta Translator, Revenue Board.	
16	Mr. H. Kerakoose, - - -	do.	Merchant.	
17	P. Rungiah Naidoo, - - -	do.	Translator, Small Cause Court.	
18	P. Vejiarunga Moodelly, - -	do.	Interpreter, High School.	This Proficient obtained Pacheappah's Vernacular Prize for a Tamil Exposition of Book II. Robertson's History of America in 1851.
19	T. Teeroomala Row, - - -	do.		
20	T. Durmaroyen, - - -	do.	Clerk in the Cutcherry, at Raja mundry.	
21	D. Teagiah Shastry, - - -	do.		This Proficient obtained Pacheappah's Vernacular Prize for a Teloogoo Exposition of the Life of Mohammed from Ockley's History of the Saracens in 1852.
22	A. Streenevassa Row, - -	do.	Translator to the Collector, Northern Circars.	

23	D. Baboo Row, - - - -	3d Proficient.	No Employment.	
24	C. Sama Row, - - - -	do.	Writer, Commissary General's Office.	
25	I. Runganathum Moodelly, -	do.	Clerk, Small Cause Court.	
26	B. Kistnasawmy Naidoo, - -	do.	Translator, Session Court, Salem.	
27	S. Soondarum Naidoo, - -	do.	Translator, Cutcherry, Nellore.	
28	M. Seevagorroo Pillay, - - -	do.	Writer, Government Office.	

List of 4th Class Scholars who left the School without a Proficient Certificate.

1	C. Narasinga Charry, - - -	Tahsildar.	
2	M. Sawmy Naidoo, - - - -	3d Jevab Neviss, Chingleput.	
3	S. Baboo Saib, - - - - -	2d Interpreter, General Police.	
4	W. Willaims, - - - - -	Preparing to enter the Church.	
5	J. Kerakoose, - - - - -	Studying for a Medical Diploma in England.	
6	T. Harry Sunkur, - - -	Assistant Auditor Military Auditor General's Office.	
7	D. Sashiah, - - - -	Head Teacher in a School, at the Mount.	This young man was the 1st Brahmin Medical Student at Madras; unfortunately paralysis compelled him to quit the Medical College.
8	H. Isaacke, - - - - -	Head Teacher in a School, at Royapett.	
9	Raganathrow, - - - -	In independent circumstances.	
10	L. Dique, - - - - - -	Keeps a Private School.	
11	A. Arathoon, - - - - - -	Merchant.	
12	S. Arathoon, - - - - - -	do.	
13	T. D'Vaz, - - - - - -	Head Teacher in the Preparatory School, Black Town.	
14	Streenevassa Charry, - - -	Writer at Salem.	
15	N. Parthasarady, - - - - -	Teacher in a School at Royapett.	
16	S. Nadamony, - - - - -	Head Teacher in a School at Masulipatam.	
17	S. Balakistnah, - - - - -	Teacher at Patcheappah's School.	

No.	Names.	Degree.	Employment.	Remarks.
18	C. Balakistnah,		Writer.	
19	P. Soondarum,		Private Tutor, to a Tanjore Zemindar.	
20	G. Sashachellum,		Merchant.	
21	C. Mootoosawmy,		Interpreter in the Zillah Court at Salem.	
22	P. Parthasarady,		Clerk in the Petty Court.	
23	S. Cassavooloo,		Under a Road Contractor.	
24	C. Aroomogum,		Employment unknown.	

List of 3d Class Scholars who remained one year and upwards in the 3d Class.

1	C. Bauloo,		Native Surgeon appointed 1852.	
2	P. Marslamonie,		Stipendiary Medical Student.	
3	C. Conniah Chetty,		Merchant.	
4	G. Aubry,		Writer.	
5	P. Ramanjooloo Naidoo,		Canarese Translator Sudder Court.	
6	S. Vigiaragavooloo Chetty,		Head Accountant Chittoor.	
7	R. F. Lawrence,		Librarian (College.)	
8	Rajeram,		Translator, Private Secretary's Office, Government House.	
9	A. Streenevass,		Writer Revenue Board.	
10	C. Rajagopaul,		Translator, Cutcherry, Salem.	
11	M. Comarasawmy,		Keeps a Private School.	
12	S. Casavorlos Naidoo,		Writer Accountant General's Office.	
13	S. Narsimhaloo,		Translator at the Chingleput Court.	
14	S. Vigiaragoororlor,		Writer Government Office.	
15	L. Vurdarajooloo,		do. Commissary General's Office.	

16	Jaward Hoosain,		Merchant.	
17	C. Cothunderam,		In independent circumstances.	
18	N. Vyapoory,		Writer.	
19	Barthalvan,		In independent circumstances.	
20	C. Vadaghury,		do. do.	
21	M. Kristnasawmy,		Clerk, Small Cause Court.	
22	J. K. Williams,		Cabinet Maker.	
23	G. Vencatanarainiah,		No Employment.	
24	B. Satoor,		Writer.	
25	H. Streenevassalu,		Writer, Gun Carriage Manufactory.	
26	D. Vencatachellum,		Writer at Coombaconum.	
27	M. Rozario,		Survey Department, Revenue Board	
28	J. Robeiro,		Keeps a School in St. Thomé.	
29	P. D'Celles,		Writer.	
30	James Harding,		Medical Apprentice.	
31	C. Parthasarady,		Merchant.	
32	C. Coopiah,		Writer, Chingleput.	
33	T. Ruthnum,		Teacher in a Missionary School.	
34	Ramachunder Row,		Writer Small Cause Court.	
35	C. Narrainsawmy,		Private Teacher.	
36	G. Rencontre,		Clerk.	

The foregoing List of Proficients is perfectly accurate ; those of 4th and 3d Class Scholars are not quite complete, as in a few cases the necessary information cannot be obtained. The 4th Class scholars, not Proficients, are in some instances but little inferior to the young men who have been honored with degrees ; and the 3d Class scholars of one year's standing or upwards, though certainly inferior to the 4th Class non-Proficients, possess my creditable attainments, as is rendered evident by the fact that some of them are officiating as Teachers. It is perhaps right to call attention to the number of past scholars, Proficients, and others, now engaged in the work of tuition. There are four Proficients, eight 4th Class scholars not Proficients, and four 3d Class scholars of one year's standing, employed as Masters in different Institutions, and of these individuals, three preside over Schools containing from one hundred to two hundred pupils each.

APPENDIX D.

MADRAS UNIVERSITY, *25th January*, 1853.

No. 1.

FROM

A. J. ARBUTHNOT, ESQ
Secretary to the Madras University.

To

SIR H. C. MONTGOMERY, BART.
Chief Secretary to Government,
Fort St. George.

SIR,

1. With reference to para. 9 of my letter of the 10th ultimo, I am directed by the Governors of the Madras University to report for the information of the Right Honorable the Governor in Council the measures which the Board have deemed advisable for placing upon an efficient footing the system of Vernacular Instruction in the Institution under their charge, and for providing competent Vernacular Teachers for the projected Provincial Schools.

2. In the plan submitted to Government with the Board's letter of the 12th May, 1848, it was proposed that a certain number of the Proficients of the High School should be appointed upon gradually increasing salaries to qualify themselves for succeeding to the several situations upon the Vernacular Establishment, most of which had then recently become vacant, and were, it would appear, intended to be held only temporarily by the present incumbents.

3. It does not appear however that any intimation to the above effect was made to the present incumbents at the time; nor do the Board very clearly understand in what manner it was proposed that

the persons selected for eventual appointment to the Vernacular Mastership should qualify themselves for their future situations, without the assistance of some competent person to superintend their Vernacular studies.

4. The first step therefore towards the introduction of an improved system of Vernacular instruction, and the establishment of a training class of Vernacular Teachers, appears to the Board to consist in the appointment of an efficient Superintendent, whose general scholarship, combined with a competent knowledge of the Vernaculars, may be such as to enable him to introduce into the High School a more efficient system of teaching than that at present in force, to superintend the translations of the scholars from and into the Vernacular languages, to take charge of a Vernacular class of Pupil Teachers and to prepare, and supervise the preparation by others of translations of approved English works into the Vernacular languages and of an improved series of Vernacular class books for use in the Educational Institutions of Government.

5. It will be by no means easy to secure the services of a person possessed of the requisite qualifications for the successful performance of this important duty, and the Board are decidedly of opinion that with the view of inducing competent persons to come forward, a salary of not less than Rupees 300 must be assigned to the officer.

6. The Board have issued a notice inviting applications from candidates, a copy of which is annexed; and so soon as they shall have succeeded in finding a competent person, they propose organizing a class of Vernacular pupil teachers, upon a plan similar to that adopted by them for the class of English Pupil Teachers, of which a notice has already appeared in the *Fort St. George Gazette*.

7. The Board propose that the Vernacular class of Pupil Teachers shall be divided into three grades, and that it shall consist of fifteen pupils with five in each grade on the following scale of salaries:—

For the first or lowest grade,.....	Rupees	7	per mensem.
For the second grade,.....	,,	10	,,
For the third grade,.....	,,	12	,,

8. On this scale the cost of the class will be Rupees 145 per mensem, or Rupees 1,740 per annum.

9. The amount proposed in the Board's letter of the 10th ultimo, to be assigned to the Vernacular Establishment of the High School, involved an additional expenditure of Rupees 435 per mensem, or of Rupees 5,230 per annum, and an aggregate expenditure of Rupees 780 per mensem, or Rupees 9,360 per annum, including the salaries of two new Moonshees for the Primary School. This amount will be hardly sufficient to defray the entire expenses of the Vernacular Establishment, and an addition of Rupees 80 per mensem, or Rupees 960 per annum, will probably be required, which, however, will fully be made up by the increase of the receipts from fees, consequent on the increase in the number of scholars having been so much greater than was anticipated by the Board, when their plans and estimates were submitted.

10. Assuming then that the sum of Rupees 860 per mensem will be available for the Vernacular Establishment, the Board propose to distribute it as follows :—

		Salary.
Vernacular Superintendent, ...	Rupees	300
Vernacular Pupil Teacher's Class, ...	„	145
Head Tamil Teacher, ...	„	70
One Assistant Tamil Teacher, ...	„	55
One do. do.	„	50
One do. do.	„	35
Head Telugu Teacher, ...	„	60
Assistant do.	„	50
Assistant do	„	35
Mahratta Teacher, ...	„	60
	Rupees...	860

11. In revising the establishment of Vernacular Teachers the Board have left the salary of the Head Tamil Teacher at Rupees 70, its present rate, but propose, on a vacancy occurring, to reduce it to Rupees 60. They have raised the salaries of the Head Telugu Teacher and of the Mahratta Teacher from Rupees 50 to Rupees 60 per mensem. The Assistant Tamil Teacher, whose salary is named at Rupees 55, is at present employed as Interpreter in the High School, but as the Establishment of the Primary School renders the

services of an Interpreter unnecessary, the Board have appointed him as an Assistant Tamil Teacher on his present salary.

I have the honor to be,
Sir,
Your most obedient Servant,
(Signed) A. J. ARBUTHNOT,
Secretary.

MADRAS UNIVERSITY,
25th January, 1853.

EDUCATION NOTICE.

It is hereby notified for general information that the Governors of the Madras University propose, subject to the sanction of Government, to appoint in the Institution under their charge, a Superintendent of Vernacular Instruction upon a salary of Rupees 300 per mensem, and will be prepared to receive applications from candidates for the office, until the 31st January, 1853.

The Vernacular Superintendent will be entrusted with the supervision of the entire system of Vernacular Instruction in the Madras University, with a view to the establishment of an efficient system of teaching and will be employed in training a class of Vernacular Pupil Teachers in the Tamil and Telugu languages, which will be established as early as may be practicable, upon a plan somewhat similar to that proposed for the class of English Pupil Teachers already advertised. He will be required to superintend the translations of the Scholars from and into the Vernacular languages, and will be expected to prepare and to supervise the preparation by others of Translations of approved English Works into the Vernacular languages of Southern India, and of an improved series of Vernacular class books for use in the Institution.

Applications should be addressed to the Secretary to the Madras University, Pantheon Road.

By order of the University Board.
(Signed) A. J. ARBUTHNOT,
28th December, 1852. *Secretary.*

APPENDIX E.

MADRAS UNIVERSITY, *26th January*, 1853.

No. 2.

FROM

A. J. ARBUTHNOT ESQ.,
Secretary to the Madras University.

To

SIR H. C. MONTGOMERY, BART.,
Chief Secretary to Government,
Fort St. George.

SIR,

1. I am directed by the Governors of the Madras University to acknowledge the receipt of an Extract from the Minutes of Consultation, under date, the 7th Instant, No. 17, conveying the orders of Government in regard to the Educational arrangements proposed by the Board in my letter of the 10th ultimo.

2. That portion of the proposed arrangements, which was intended to be carried out in the Presidency involved the division of the Madras University into three departments—a Primary School, a High School, and a Collegiate Department ; the establishment of Normal classes for training English and Vernacular Teachers for employment in the Schools hereafter to be established in the Provinces, and the appointment of paid Examiners who should conduct the public examinations about to be set on foot ; the total cost of this portion of the scheme being estimated at about Rupees 50,000 per mensem. Of the remainder of the sum which was assumed to

be available for educational purposes, Rupees 30,000 were set apart for the establishment of five Provincial Schools, and Rupees 20,000 for the introduction of the Grant-in-Aid system.

3. The Board have learnt with regret that the amount proposed by them to be expended at the Presidency has been objected to by the Right Honorable the Governor in Council, as being an undue proportion of the funds at present available, and that the sanction of Government has been withheld from the formation of the Collegiate Classes, which for the reasons stated in the 11th para. of my letter of the 10th ultimo, was considered by them to be essential to the efficiency of the Institution.

4. It appears to the Board, however, from the tenor of the order of Government now under reply, that some misconception exists in regard to the extent of the measures already sanctioned; and as they are led to apprehend from the remarks, recorded with reference to the proposed Presidency expenditure, that the nature of that expenditure, and the fact that a considerable portion of it must be debited to the general purposes of education throughout the Presidency, and that it cannot fairly be included under the head of expenditure incurred on account of the Madras University, has, in some degree, been overlooked, they have deemed it their duty again to address the Government upon those points upon which explanation appears to be required.

5. It is to be inferred from the observations made by the Right Honorable the Governor in Council in regard to the proposed Presidency expenditure, that for the present, at all events a sum considerably less than that named by the Board, viz.: Rupees 50,000* is considered sufficient for the purpose; but on comparing the orders of Government last received with the orders of the dates noted in the margin,* and with the estimates submitted by the Board in my letter of the 10th ultimo, it appears that the adoption of the measures already sanctioned will involve an annual expenditure amounting to Rupees 47,930, being only Rupees 2,070 less than the amount to which the Govern-

* NOTE—With reference to the note affixed to para. 2 of the order under reply to the effect that when the proposed building is erected the interest of the capital expended thereon will then be in place of rent, it is to be observed that the Board's calculations were based on the assumption that exclusive of the cost of a building the sum available for educational purposes would amount to one lac of Rupees.—*See Extract from Minutes of Consultation, under date the 1st November, 1852, para.* 18.

22d June and 1st November, 1852.

ment have objected, as being an undue proportion of the funds at present available for the entire Presidency.

6. The additional items of expenditure enumerated in the Board's letter of the 10th ultimo., and having reference to measures already sanctioned by Government in their orders of June and November, 1852, are as follows:—

The Establishment of a Primary School was sanctioned in the Extract of Minutes of Consultation, under date the 1st November, 1852, para. 6.	Net cost of a Primary School,.....	3,000
Sanctioned in the Extract Minutes of Consultation, 1st November, 1852, para. 15.	English Normal Classes, ...	2,000
See Extract Minutes of Consultation of the 22d June, 1852, paras. 25 and 26 and Extract Minutes of Consultation, under date, the 1st November, 1852, para. 15.	Addition to the Vernacular Establishment,	5,230
See Extract from Minutes of Consultation, under date the 1st November, 1852, para. 19.	Annual charge on account of paid Examiners,.....	2000
		12,230
Add to the above items of charge the average expenditure on account of the High School up to the end of the past year estimated at about,.....		27,000
		39,230
The salary of the Secretary, ...		3,000
The salary of a 3d Master which has now been sanctioned....		4,200
And the estimated loss to Government by the reduction of the School fee, which was estimated at,.....		1,500

And we find a total expenditure of 47,930 involved in the several measures already sanctioned, the estimates of which have not been objected to and cannot certainly be framed on a more economical plan.

7. The charges disallowed are the addition of Rupees 1,800 proposed to Mr. Gordon's salary, and the salary of a Law Professor estimated at Rupees 2,400.

8. The former of the two charges in question has not been alluded to by Government. It was proposed by the Board partly in consideration of Mr. Gordon's past services, and the inadequacy of his present salary, with reference to the position filled by him in the institution, but principally as a remuneration for the additional duties about to be imposed upon him in the instruction of the English Class of Pupil Teachers, which has been assigned to him by the Board in addition to his usual duties. Mr. Gordon was selected for this office as being the fittest, and in fact the only fit person available, having already acquired some experience in England in the system or Normal Training; and as the Board would not feel themselves justified in imposing upon him, without renumeration, the additional labor which the instruction of such a class must entail, the non-compliance with the Board's recommendation in his favor will, they fear, greatly embarass them in the establishment of the English Normal Class.

9. Adverting, however, to the great importance of the projected class as the only means of raising up a body of efficient Native Teachers, and considering that the salary assigned to the third Master whose appointment has now been sanctioned, has been fixed at the sum which Mr. Gordon has received since his first appointment in 1846, on which occasion it is understood that hopes were held out to him of an eventual increase of salary, and the fulfilment of which the Board consider only due to his position in the Institution, and his zeal and efficiency in the discharge of his duties, the Board trust that their recommendation on this point will be reconsidered and authority granted them to carry it out.

10. The Board have already observed that several of the items of charge proposed by them to be expended at the Presidency cannot fairly be included among the charges of the Madras University, but should be debited to the general purposes of education for the entire Presidency.

11. Under this head the Board would place the following charges:

The Annual cost of the English Normal Class of Pupil Teachers, ...	2,000
The Annual cost of the Vernacular Class of Pupil Teachers,.....	1,800
A moiety of the Salary of the Superintendent of Vernacular Instruction who will be employed in training a Vernacular Normal Class,.....	1,800
Annual charge on account of public Examiners,.....	2,000
A moiety of the Secretary's Salary,.....	1,500
A moiety of the cost of the Secretary's Establishment,..	486
Rupees..	9,586

12. If the above be deducted from the aggregate amount of expenditure proposed for the Presidency, the charges to be borne by the University according to the plan and estimate submitted by the Board, will but little exceed Rupees 40,000, which, even with the limited funds at present available for the entire Presidency, the Board cannot look upon as an undue proportion to be assigned to the Central Institution, considering the population of Madras and the high standard of Education which the principal Educational Institution of Government should be competent to afford.

NOTE.—From the Report of the Board of Education of Bombay for 1851-52, the cost of the Elphinstone Institution appears after deducting School Fees which amounted to Rs. 11,894 to have been Rs.40,204-12-10.

13. The Board would hope that the foregoing explanation will have the effect of removing the impression that they have attached an undue importance to the Institution at present under their charge.

14. In framing their measures for placing this Institution upon an efficient footing, the Board were guided by the instructions conveyed in the 8th para. of the Extract Minutes of Consultation, under date the 1st November last, that they should devote "their "energies to the necessary measures for rendering the High School "of Madras what it was intended to be at its foundation; that is, "the centre of the future educational arrangements of the entire "Presidency."

15. The division of the Institution into a Primary School, High School, and Collegiate Department was advocated by the Board chiefly as a means of improving the system of instruction. With

the exception of Moral Philosophy and Law, the course of study assigned to the Collegiate Department was, as expressly stated in paras. 14 and 17 of my letter of the 10th ultimo, confined to the subjects already studied in the upper classes of the High School; and as the Government in sanctioning the appointment of a third Master have afforded to the Board the means which were required for the more efficient instruction of the higher classes, the establishment of a Collegiate Department, whenever it may be sanctioned, will, as respects the upper classes of the School, involve little more than a change of name, conferring upon them a title corresponding more accurately with the nature of the instruction now imparted in them.

16. The change of designation, however, will not be a mere matter of words. It will, as shown in para. 10 of my letter already quoted, have the advantage of affording an additional stimulus to the more advanced scholars, and inducing them to remain in the Institution for a longer period than is their practice at present. It will place the Institution itself on a more dignified footing, analogous to that occupied by the Colleges in the sister Presidencies: while to the Masters of these proposed classes it will be but an act of justice, and one merited by the length and value of their services, to place them in the same professional position, as the Principals and Professors of the several Educational Institutions of Bengal and Bombay.

17. With reference to the suggestion of the Right Honorable the Governor in Council that "Mr. Powell, the Head Master, should be "so far relieved from his present duties, as to admit of his instruct-"ing the few boys who may be at first found qualified for it on "some of the subjects of study to be pursued by the Collegiate Depart-"ment hereafter to be established," I am directed to advert to the remarks recorded in the preceding paras. as to the identity of the subjects proposed for the Collegiate Department (with the exception of the two already noticed) with those now and for some time past studied in the upper classes of the School, and to observe that one of the principal reasons which weighed with the Board in recommending the arrangements proposed in my former letter, was that under the new system, the attention of each of the Professors would be confined to a set of kindred subjects, instead of being as at present devoted to six or eight different subjects, and their respective efficiency would, in consequence, be considerably increased. The

advantage of such a division of labor in the higher departments of educational instruction is invariably recognized in Europe, and appears to the Board to be equally applicable to the institution under their charge. The assignment of the entire instruction of the higher classes to any one single Master would defeat one of the principal objects the Board had in view, when applying for the services of a third Master, and now that this addition to the strength of the establishment has been granted, they will still feel it incumbent upon them so to regulate the subjects to be taught by the first and second and third Master respectively, that the arrangements will in all respects, but that of the designation of the classes and their instructors, correspond with that recently recommended to Government.

18. Under this explanation the Board would still hope that if the question has not been submitted for the consideration of the Honorable the Court of Directors, the introduction of the Collegiate Department into the University may at once be sanctioned. If the reference has been made, they would solicit that the remarks which they now record in elucidation of the true bearing and purport of this part of their plan may also be transmitted at an early date for the information of the Honorable Court.

19. The Board learn from para. 7 of the order now under reply that the erection of a building is to be immediately commenced; and they direct me to request that until the building is completed they may be authorized to disburse to Mr. Powell the sum of Rs. 80, on account of House rent, the rooms in the present building which have hitherto been occupied by him, having been appropriated as class rooms in consequence of the great increase in the number of Scholars, caused by the reduction of the School fee. It has always been intended that whenever a building should be erected for the University a set of rooms should be assigned to the Head of the Institution.

* * * * * * *

I have the honor to be,
Sir,
Your most obedient Servant,
(Signed) A. J. ARBUTHNOT,
Secretary.

MADRAS UNIVERSITY,
26th January, 1853.

APPENDIX F.

Scheme of Studies pursued by the Scholars of the High School of the Madras University during the year 1852.

ENGLISH DEPARTMENT.

4th Class, Upper Rank.

Subjects.	*Books*	*Portions read during the Year*	*Portions for examination*
Philosophy of History	Smyth's Lectures on Modern History	The first seven Lectures with the Introductory Lecture (pages 1—201).	The whole.
History	Russell's Modern History, Vol I	Letters 37, 38, 40, 41, 43, 46, 47, 48, 50 and 51, (101 pages)..	do
English Literature.....	Shakespeare.....	Macbeth.....	do
	Milton	Comus.....	do.
Political Economy	Marcet's Conversations on Political Economy.....	Conversations 18—23 (87 pages).....	do.
Mental Philosophy.....	Abercrombie on the Intellectual Powers	Pages 23—267.....	do.
Astronomy.....	Herschel's Astronomy and the Master's note book	Chapters 1, 2, 3, 4, 5, 6 & 9 of Herschel, together with mathematical demonstrations of the principal propositions (243 pages in Herschel).	do.
Conic Sections	Hamilton's Conic Sections	The straight line, Circle and Parabola, omitting Articles 34, 35 & 46, also Chapters 1 and 2 on the Conic Sections in general (80 pages).....	do.
English Composition			

4th Class, Lower Rank.

Subjects	*Books.*	*Portions read during the Year.*	*Portions for examination*
History	Russell's Modern Europe, Vol II	Pages 1—165.....	The whole.
	Goldsmith's History of England...	Reigns of George III.& IV	do
Geography.....	Goldsmith's Grammar of Geography	Asia	do
Poetry.....	Calcutta Poetical Reader, No. IV	The Traveller, the Vanity of Human Wishes and Gray's Elegy written in a Country Church yard..	do.
Natural Philosophy.....	Elements of Pneumatics, and an Elementary account of the Steam Engine.....	The whole	do.

4th Class, Lower Rank.—(Continued.)

Subjects.	*Books.*	*Portions read during the Year.*	*Portions for examination.*
Geometry	Williams' Symbolical Euclid	The 11th Book to Proposition 21	The whole.
Algebra	Pinnock's Catechism of Algebra	Quadratic Equations, Progressions and Problems, with a few Theorems	do.
Plane Trigonometry	Snowball's Trigonometry.	The first 5 Chapters, part of the 6th, and Appendices 1 & 2	do.
English Composition			

3d Class, Upper Rank.

Subjects.	*Books.*	*Portions read during the Year.*	*Portions for examination.*
Political Government	Norton's Rudimentals....	Pages 25—184 and 192—196 Discourses 1, 2, 3 and 4	The whole.
History	Goldsmith's History of England	„ 131—241 Charles I, George II.	do.
Geography.....	Indian Geography and History by Symonds	„ 169—269 (Southern India—Japan).	do
	Goldsmith's Grammar of Geography.....	Asia and America.....	do.
Poetry.....	Calcutta Poetical Reader, No. III.....	Pages 188—216.....	do.
Use of the Terrestrial Globe.	Goldsmith's Geography...	12 Problems.....	do.
Arithmetic	Bonnycastle's Arithmetic.	The whole generally.....	do
Geometry	Williams' Symbolical Euclid	Books, 3, 4 and 6.	do.
Algebra	Pinnock's Catechism of Algebra.....	To the end of Quadratic Equations	do.
Natural Philosophy	Introduction to Natural Philosophy.....	Machanics and Astronomy	do.
English Composition.....			

3d Class, Lower Rank.

Subjects.	*Books.*	*Portions read during the Year.*	*Portions for examination.*
History	Goldsmith's History of England..... ..	Pages 1—160 to the end of the Commonwealth.....	The whole.
Geography.....	Symonds's Geography and History of India.... ...	„ 1—168 Northern Hindoostan, Hindoostan proper and the Deccan..	do.
	Guy's do.	Asia, Africa and North America ....., ...	do
Poetry....	Calcutta Poetical Reader, No III	The first six Lessons pp 1. II.....	do.
Grammar	Murray's Grammar	The whole, not including the Appendix, with class exercises	do
Arithmetic.....,	Bonnycastle's Arithmetic.	Evolution, Simple and Compound Interest ...	Arithmetic generally.
Geometry	Williams' Symbolical Euclid	The 1st and 2d Books....	The whole
Algebra.....	Pinnock's Catechism of Algebra.....	Part I	do.

2d Class, Upper Rank.

Subjects.	*Books*	*Portions read during the Year*	*Portions for examination.*
History	Goldsmith's History of Rome.....	Chapters 18—22, pp. 104—230	The whole.
Geography.....	Guy's Geography.....	Pages 88—141, Asia and Africa	do.
Poetry.....	Gay's Fables	Fables 1—4, 35—50 of Part I & 1 in Part II.	Fable 1, 2, 3, 4, 35—37, 38, 39, 43 & 45.
Grammar.....	Murray's Abridgment . ..	The whole with class Exercises.....	The whole.
Spelling.....	Carpenter's Spelling Book.	Pages 104—116, with applications of the words ...	do
Arithmetic.	Bonnycastle's Arithmetic.	Vulgar and Decimal Fractions, Practice, Involution and Evolution of the square root.....	do.

2d Class, Lower Rank.

Subjects.	*Books.*	*Portions read during the Year.*	*Portions for examination.*
History	Goldsmith's History of Rome.....	Pages 1—115, to Catiline's conspiracy.....	The whole.
Geography.....	Hogarth's Exercises.....	The whole.....	do.
Poetry	Gay's Fables	Fables 21—28.....	do.
Grammar.....	Murray's Abridged Grammar.....	The whole	do.
Spelling.....	Carpenter's Spelling Book	Pages 78—97, with applications of the words....	do.
Arithmetic.....	From the Master.....	From the Compound Rules to Proportion in Vulgar Fractions.....	do.

1st Class, 2d Division.

Subjects.	*Books.*	*Portions read during the Year.*	*Portions for examination.*
Reading.....	Goldsmith's Natural History	Chapters 2—11, pp. 6—156	Chaps. 7—11 pp. 68—155.
Geography.....	Hogarth's Outlines of Geography	The whole.....	Asia, Africa and America.
Grammar	Murray's Abridged Grammar.....	do.	The whole.
Arithmetic	From the Master.....	The first four rules in Vulgar Fractions	do

1st Class, 1st Division.

Subjects.	*Books*	*Portions read during the Year.*	*Portions for examination.*
Reading.....	Goldsmith's Natural History..	Pages 129—231.....	The whole.
Geography	Hogarth's Outlines of Geography.....	The whole.....	Asia Africa and America.
Grammar.....	Murray's Abridged Grammar	do.	The whole.
Arithmetic.....	From the Master	The Compound rules, Reduction and Reduction of Fractions.....	do.

Preparatory Class

Subjects	*Books.*	*Portions read during the Year.*	*Portions for examination*
Reading	Æsop's Fables.....	From Fable 1—110, pp 1—64.....	The whole.
Geography	Cliff's Geography.....	The whole.....	Europe & America.
Grammar	The Elements of English Grammar	Orthography and Etymology.....	The whole
Arithmetic	From the Master.....	Four simple rules.	do

VERNACULAR DEPARTMENT.

TAMIL.—4th Class, Upper Rank.

Subjects.	*Books*	*Portions studied during the Year*	*Portions for examination*
Grammar	Nunnool	Padaveal Ooyer-eethoo. Poonareal Yedy-cholleal & Oo-rechelleal } pages 62	The whole.
Poetry.....	Theroo Kooral.....	Chapters 66—80, pages 54	do.
	Naladear.....	do. 1— 7, do. 52	do
Hindoo Law..	Smiroothi Chundrika ..	Pages 1—50	do
Tales	Punchatuntree	The whole.....	do

4th Class, Lower Rank.

Subjects.	*Books.*	*Portions studied during the Year*	*Portions for examination.*
Grammar	Nunnool	Yeloottheal, Padaval, Pages 41.....	The whole
Poetry.	Kural	Chapters 1—13, pages 48..	do
Tales	Punchatuntree	Parts 3 & 4, Pages 40 . . .	do

3d Class.

Subjects	*Books*	*Portions studied during the Year*	*Portions for examination*
Grammar.....	Catechism of Tamil Grammar by Thondavaroya Moodeliar	Pages 21—117	The whole.
Fables and Stories	Robertson's Selections.	Pages 31—100	do

2d Class.

Subjects	*Books*	*Portions studied during the Year*	*Portions for examination.*
Grammar.....	Abridgment of Grammar by Mahalingiah	Pages 34—82.....	The whole
Moral Sentences	Nitisaravakuyum.....	do. 21—80	do
Tales	Punchatuntree	Parts 1 & 2	do

1st Class, Upper Rank.

Subjects	Books.	Portions studied during the Year	Portions for examination
Grammar	Abridgment of Grammar by Mahalingiah.....	Pages 1—33....	The whole
Fables	Cadamanjaree	do 17—80	do

1st Class, Lower Rank.

Subjects	Books	Portions studied during the Year.	Portions for examination.
Grammar	Abridgment of Grammar by Rhenius	Pages 1—15....	The whole
Fables	Cadamanjaree	do 1—36.....	do

TELUGU.—4th Class.

Subjects.	Books	Portions studied during the Year.	Portions for examination
Grammar	Gooroomoorthy's Grammar.....	The whole	The whole.
Poetry.....	Manu Charithra	From page 56, to the end pages 137.....	do.
	Harischundra	Pages 1—60.....	do
	Kavijanarunjanamoo ...	do. 1—15.....	do.
Glossary of Synonymous Words.	Andranama Sangrahum ..	The whole—pages 60	do.
Reading	Manuscript Letters on various subjects .		

3d Class.

Subjects.	Books.	Portions studied during the Year.	Portions for examination.
Grammar.....	Gooroomoorthy's Grammar.....	The whole—pages 152....	Pages 1—81.
Poetry	Nalacharitra	Pages 1—92	The whole.
Fables	A Translation of the Arabian Nights' Entertainments, by Ramakistnah Sastry	do. 1—300, Vol II . ..	Pages 1—200, Vol II.
Official Papers	Morris' Selections.....	do 109—136.....	The whole

2d Class, Upper Rank.

Subjects.	Books	Portions studied during the Year.	Portions fortexamination
Grammar	Gooroomoorthy's Grammar..	Pages 1—39 and the verbs	The whole
	Campbell's Grammar ..	do 23—53 do	do.
Fables	A Translation of the Arabian Nights' Entertainments, by Ramakistnah Sastry.	do 1—200, Vol I	Pages 1--100, Vol. I
Official Papers.	Morris' Selections . ..	do. 109—136	The whole

2d Class, Lower Rank.

Subjects.	Books.	Portions studied during the Year.	Portions for examination.
Gammar	Gooroomoorthy's Grammar	Pages 1—38 and the verbs.	The Verbs.
Tales	Punchatuntree	do. 1—81	The whole

1st Class, Upper Rank.

Subjects.	Books	Portions studied during the Year	Portions for examination.
Tales	Vikramarka	From page 31, to the end Pages 82	From p. 77 to the end.
Official Papers.	Morris' Selections	Pages 1—108	Pages 1—45.

1st Class, Lower Rank.

Subjects	Books.	Portions studied during the Year.	Portions for examination.
Exercises on the English Irregular Verbs	Brown's Translation of the exercises on the English Irregular Verbs.	Pages 1—30	Pages 1—15.
Balasiksha	Balasiksha	do. 1—24, 71—84	The whole.

MAHRATTA.—4th Class.

Subjects.	Books.	Portions studied during the Year.	Portions for examination.
Grammar	Balavyacurnum	The whole	The whole.
History	Grant Duff's Mahratta History	Chapters 1—10, pages 1—170	do
Natural Theology	Youth's Book on Natural Theology	Conversations 1—5, pages 1—81	do

3d Class.

Subjects.	Books.	Portions studied during the Year.	Portions for examination.
Grammar	Balavyacurnum	The whole	The whole.
History	Mahratta Abridgment of Elphinstone's History of India	do.	do.
Berquin's Children's Friend.	Balamithra	Pages 1—51, Vol II	do

2d Class.

Subjects.	Books.	Portions studied during the Year.	Portions for examination.
Moral Fables	Æsop's Fables	Fables 50, pages 1—101	The whole.
Writing from Dictation			

1st Class.

Subjects	Books.	Portions studied during the Year	Portions for examination.
Moral Tales	Neethi Kutha	The whole	The whole.
Spelling	Lipidara	do	do

QUESTIONS PROPOSED TO THE SENIOR SCHOLARS OF THE HIGH SCHOOL.

Smyth's Lectures.

1. In the struggle between the Romans and Barbarians on which side were the probabilities of success? Support your opinions by the reasons on which you found it. What was the immediate result of the overthrow of the Roman Empire? Is it necessary, and if so, why, to study this portion of history with reference to Modern history?

2. State the principal subjects to which attention should be directed in the study of the middle ages. What are the principal lessons to be derived therefrom?

3. What were the benefits and what the evils of the Feudal System? What led to its downfall; how did each cause affect it, especially in England?

4. Name the principal cities of the Hanseatic League, and explain the political origin of that League.

5. State the principal points to which attention should be directed in judging of any code of laws. Examine the Salique code strictly with reference to such principles, briefly.

6. What reasons render it necessary to the student of European History to consider the history of Mahomet.

7. What benefits did the Church of Rome confer upon Society? What were its evil effects? What causes shook its power?

8. Draw the character of Gibbon's writing. Point out the merits and defects of Hume's history, give illustrations.

9. How has it happened that starting from nearly similar points, France has lost her constitution and England not?

10. What parallels does the reign of King John of France offer to passages in English and in later French History?

Russell's Modern Europe.

1. What was Edward the 1st's policy towards Wales? the same towards Scotland?

2. Trace the rise of the British House of Commons.

3. Draw the character of Edward I.

4. Give the history of Robert Bruce.

5. What was the fate of Edward II. What led to his untimely end?

6. Give a succinct account of the quarrel between Philip IV. of France and Pope Boniface VIII.

7. State what measures Philip IV. pursued against the Knights Templars.

8. Describe the battles of Cressy, Poictiers, Agincourt; give their dates.

9. Who were the 'Companies'? How did Charles V. of France rid himself of them? Give a short account of the contests between Peter the cruel, and Henry of Trastamara.

10. Describe the riots of Wat Tyler.

11. How came Henry IV. and Richard III. respectively to the throne of England?

12. Draw a genealogical tree of the kings of England from Richard II. to Henry VII. both inclusive.

Shakspeare's Macbeth.

1. Should you class Macbeth amongst the Historical Dramas of Shakspeare? point out in what it differs from those strictly called so.

2. The object of Tragedy has been said to be "to purify the passions by moving pity and terror"—illustrate this from Macbeth.

3. Dr. Johnson in speaking of this play says "Lady Macbeth is merely detested"—Do you agree with this?—point out if you can, any redeeming traits introduced by the poet into her character.

4. Give a sketch of the character of Macbeth, and compare him with any other of the daring bad men described by Shakspeare in any play you may have read.

5. Paraphrase the soliloquy of Macbeth Act I. Scene 7.

"If it were done," &c. to the end.

6. Explain the following passages:

1. *Banquo.*

" That trusted home
Might yet enkindle you unto the crown
Besides the thane of Cawdor."

2. *Macbeth.*

" My thought whose murder is yet fantastical
Shakes so my single state of man, that function
Is smothered in surmise; and nothing is
But what is not—"

3. *Lady Macbeth.*

" Thou wouldst be great;
Art not without ambition; but without
The illness should attend it. What thou would'st highly,
That would'st thou holily; would'st not play false,
And yet would'st wrongly win; thou' d'st have great Glamis
That which cries " Thus thou must do, if thou have it:
And that which rather thou dost fear to do
Than wish'st should be undone."

4. *Macbeth.*

Go prick thy face, and over-red thy fear
Thou lily liver'd boy—what soldiers, patch?
Death of thy soul! those linen cheeks of thine
Are counsellors to fear—what soldiers whey-face?

7. In what light do you regard the witches and their agency in this play?

8. State shortly your ideas of the character of Banquo.

9. Do you see any peculiar beauty and appropriateness in the following passage? comment on it.

Act I. Scene 6. *Duncan.*

This castle hath a pleasant seat; the air
Nimbly and sweetly recommends itself
Unto our gentle senses.

Banquo.

This guest of summer
The temple-haunting martlet, does approve
By his lov'd mansionry, that the heaven's breath
Smells wooingly here; no jutty, frieze, buttress
Nor coigne of vantage, but this bird hath made
His pendent bed and procreant cradle; where they
Most breed and haunt, I have observed the air
Is delicate.

Milton's Comus.

1. What gave rise to the fable of Comus?

2. In what does the masque differ from the more regular drama?

3. Paraphrase these passages,—

"Can any mortal mixture of earth's mould ———
&c. &c. &c. &c.
——————— smoothing the raven-down
Of darkness, till it smiled!"
"So dear to heav'n is saintly chastity,———
&c. &c. &c. &c.
Till all be made immortal."

4. Explain the expressions "what time the labour'd ox in his loose traces from the furrow came."

"Swink'd hedger"
"Mantling vine"
"Or low-roosted lark"
"From her thatch'd pallet rouse;"
"Stoic fur,"
"Cynic tub."

5. Explain fully the following passages:

"He that has light within his own clear breast
&c. &c. &c. &c.
Himself is his own dungeon,"

"If every just man that now pines with want
&c. &c. &c. &c.
Crams and blasphemes his Feeder."

Political Economy.

1. What is the subject matter of Political Economy?

2. Define wealth and state the various requisites to its production.

3. Give instances to illustrate and explain the operation of capital in the production of wealth.

4. Explain the distinction between the *value* and the *price* of a commodity.

5. State briefly by what means the value of the precious metals equalises itself in all parts of the civilized world.

6. Under what principal heads may the trade of a country be divided? Explain how trade contributes to the production of wealth.

7. Show that facilities for the conveyance of goods either by roads or by water carriage are calculated to increase the produce of a country.

8. Explain in what manner a foreign trade is mutually advantageous to the countries engaged in it.

9. Upon what principle is an extensive competition among traders more generally beneficial than an extensive competition among purchasers.

10. State the arguments in favor of a free trade in corn as well as the arguments which have been adduced against it.

11. Show that the principle of a division of labor is equally applicable to different countries as to different individuals.

12. Explain the use of a Bill of Exchange in Commercial transactions, and the cause of the variation in the exchange both real and nominal.

13. State the objections to sumptuary Laws.

14. Under what circumstances is the increase of luxury prejudicial to the public prosperity.

Mental Philosophy.

1. Explain the fallacy in Hume's argument against miracles?

2. What objections may be raised against light reading?

3. State the argument in favor of Brown's sixth sense. Also explain the way in which we form a notion of the nature of distant objects.

4. Define memory, recollection, conception, perception, abstraction, and imagination.

5. What evidence have we of the existence of mind and matter?

6. Is the will free, or is it subject to any restraint?

7. What is induction? Is any other process requisite previous to induction?

8. Explain why mathematical reasoning is less liable to error than political or moral reasoning?

Astronomy.

1. Illustrate by a figure, representing the sphere of the heavens, the terms, right ascension, declination, polar distance, azimuth, &c.

(α) Show that the latitude of a place is equal to the altitude of the pole.

2. Point out the various methods of finding the latitude of a place.

(α) Determine the latitude from two equal altitudes of the sun observed before and after noon.

3. Point out different methods of finding the longitude.

(α) Find the longitude by the moon's distance from a fixed star.

4. What are the principal astronomical corrections necessary to determine the true place of a heavenly body. Explain briefly and concisely the causes of these inequalities, and how they affect astronomical observations.

5. Prove $p = \mathrm{P}.\sin(\mathrm{Q} + p)$

Where p denotes parallax, P horizontal parallax, Q the zenith distance.

(α) Show how P may be determined by means of two observations made in the same meridian.

(β) Show how the sun's parallax may be determined from the transit of Venus.

(γ) The Sun's parallax being $8''\cdot6$, determine his distance from the earth.

6. Find the aberration of a fixed star.

7. Distinguish accurately between sidereal, solar, and mean solar time; also between the tropical, sidereal and anomalistic year.

(α) Express the sidereal interval. $9^{h}\ 13^{m}\ 28^{s}$ in mean time.

Q. 8. Point out the various methods of determining the mean time by observation.

(α) Given a, Sun's altitude,
D, North polar distance,
l, latitude of place,
find the mean time.

9. Explain the equation of time, from what causes it arises; and state when from either cause it is additive or subtractive, and when from both causes it is a maximum.

(α) Find an expression for the equation of time.

10. Show how the right ascension of the sun may be found, thence the obliquity of the Ecliptic.

11. Given the right ascension and declination of a star, find its latitude and longitude.

(α) Explain the method of making a catalogue of the fixed stars.

12. Describe briefly and concisely the principal instruments found in an observatory and their uses.

(α) Find the deviations of the transit instrument from the meridian and give the correction.

(β) Describe accurately the mode in which the absolute zenith distance of a star is found.

13. Illustrate by a figure the phenomena of a lunar eclipse.

(α) Find the breadth of the earth's shadow at the distance of the moon.

(β) Find the time and duration of a lunar eclipse.

14. Find the solar ecliptic limit.

15. Show the effect of annual parallax on a double star.

Conic Sections.

1. Assuming

$$y^2 = \frac{\text{Sin } \theta}{\text{Cos}^2 \frac{\alpha}{2}} \left(\delta \sin \alpha . x - \sin (\alpha + \theta) x^2 \right)$$ the

general equation to the section of a right cone by a plane, in what direction must we cut a cone, whose vertical angle is 60°, in order to obtain an ellipse with its major axis related to its minor as $\sqrt{3}$ is to $\sqrt{2}$?

2. Explain briefly the mode of tracing a parabola with any given parameter by means of a ruler and a pair of compasses.

3. Prove that $r = m \text{ sec. } \frac{2w}{2}$ for the parabola.

4. The equations to the parabola and hyperbola are $y^2 = 4mx$ and $y^2 = \frac{b^2}{a^2}(x^2 - a^2)$; show how the general inclinations of the branches to the axes differ in the cases of the two curves.

5. Find the length of the normal at the extremity of the latus rectum of a parabola in terms of the shortest focal distance.

6. The equation to an ellipse is $y^2 = 8x - 2x^2$ and that to a parabola $y^2 = 4x$; find the co-ordinates to the points of intersection of the two curves, and the angle between the tangents at those points.

7. Trace the curve whose equation is $y = a^x$ and find the value of the subtangent.

8. If two lines be drawn from the focus of a parabola, one to the point of contact, and the other to the point in which the tangent meets the directrix, prove that the lines will be perpendicular to each other.

SELECTED ANSWERS OF THE SENIOR SCHOLARS OF THE HIGH SCHOOL.

Smyth's Lectures.

Q. 1. In the struggle between the Romans and Barbarians on which side were the probabilities of success? Support your opinion by the reasons on which you found it. What was the immediate result of the overthrow of the Roman Empire? Is it necessary, and if so, why, to study this portion of history with reference to Modern History?

A. 1. In the struggle between the Romans and the Barbarians, the probabilities of success lay unquestionably on the side of the latter. These two great divisions of mankind that were drawn in hostile array against each other were placed in circumstances the most opposite in nature, and distinguished by qualities the most antagonistic in character. The Romans were sunk in the utmost depths of effeminate luxury, debauchery and licentiousness. Their ardour for martial enterprizes disappeared and was succeeded by a love of pleasure. The empire swelled beyond proportion, despotism was established throughout; and subjects were heavily oppressed, and in consequence the feelings of a patriot were rendered strangers to their bosom. But on the contrary, the Barbarians were characterized by vigour and activity; and being inured to the hardships of war they were matchless in the field. The sword was their ornament, courage was their virtue, and independence was their property. They were ignorant of the very name of luxury; but were on the contrary, possessed of the austere virtues of the rude and simple man. When parties, so different in their nature and character came into collision, there exists no doubt of the Barbarians becoming successful. The contest between them is called by Smyth the contest of youth against age and vigor against weakness.

The immediate result of the overthrow of the Roman Empire was the dark ages. It is essentially necessary that these dark ages should be studied for the full comprehension and appreciation of the

events of Modern History. Because in them we see the elements of the modern European character; the origin and circumstances that formed the European individual, and gave shape to the European Governments.

A. Narrain Row.

Q. 2. State the principal subjects to which attention should be directed in the study of the middle ages. What are the principal lessons to be derived therefrom?

A. 2 The principal objects that engage our attention in the study of the middle ages are, 1st. The reign of Clovis, the first king of the Merovingian race and the founder of the French Monarchy; 2d. The Mayors of the Palace; 3d. The reign of Charlemagne the greatest prince of his age; 4th. The division of the empire of Charlemagne into the great kingdoms France and Germany; 5th. The rise and progress of the Feudal system; 6th. The Papal power; 7th. The contest between the German Emperors and the Popes; 8th. The institution of Chivalry; 9th. The rise of the free and imperial cities and communities; 10th. The Crusades; 11th and last, the laws of the Barbarians. The lessons we derive from the study of the history of the middle ages are that civil cannot in the first instance proceed from natural liberty, and that superstition cannot engender religion but only ignorance.

V. Rajagopaul.

Q. 3. What were the benefits, and what the evils of the Feudal system? What led to its downfall? How did each cause affect it, especially in England?

A. 3. The benefits of the Feudal system were few, and the evils were many. It always placed the kingdom in a posture of defence and thus provided for its security against the aggressions of a foreign enemy. It also secured the people against any arbitrary establishment of the sovereign inasmuch as the barons were powerful and their union was sufficiently formidable to overwhelm the arbitrary authority of the king. But the evils of this species of government were of the most appalling nature. Each baron was a petty tyrant of the district over which he ruled; and the whole kingdom fell into a great number of baronies, the rulers of which were almost independent of the king. These barons not only sported with the laws of their country, impeded the regular administration of justice and

shut out the people from all the blessings of a just Government; but also exposed them to every species of outrage and violence by making perpetual wars with one another and rendering it a scene of confusion, anarchy and distress.

The Crusades, the rise of the cities and the institution of Chivalry were the main causes that brought about the decline of the Feudal system, one of the greatest evils with which mankind to contend during the dark ages.

Many of the barons actuated partly by superstition and partly by love of glory, considered Jerusalem as the theatre of honor and were seized with an ardent desire of engaging in the Crusades. They therefore either disposed of or mortgaged their estates to the sovereigns and sold enfranchisements to those employed in the cultivation of their domains in order to obtain the supplies necessary for their expedition to the Holy Land. Thus royalty was strengthened, the power of the barons declined, and the people began to rise from that state vassalage and slavery into which they were sunk. There is another way in which the Crusades contributed to the decline of the Feudal system. As the Crusades lasted for centuries, a constant and regular intercourse was kept up between Europe and Asia. The venetian cities which furnished the Crusaders with ships and provisions transported the commodities of Asia into Europe and thus introduced into the continent a taste for the luxuries of the east. The barons spent in the purchase of the luxuries those enormous sums of revenue which went formerly to the maintenance of idle sycophants and attendants. They therefore dismissed their attendants who constituted their power and thus the baronial authority gradually declined.

The cities obtained immunities and privileges almost all over Europe and were warmly patronized by many sovereigns as a resource against the formidable power of the barons. Thus a new body of men was brought into importance, and sometimes joining the one and sometimes the other, checked the encroachment of the sovereign and the insolence of the barons.

The institution of Chivalry afforded protection to the widow and orphans; and the weak and unarmed. The Knights often armed themselves in behalf of the innocent and weak and thus curbing the oppression of the baron mitigated the rigors of the Feudal system.

T. Mootoosawmy.

Q. 7. What benefits did the Church of Rome confer upon Society? What were its evil effects? What causes shook its power?

A. 7. The Church of Rome conferred blessings upon Society, inasmuch as it lessened the power of the barons by contriving to draw within its jurisdiction all cases. It served as a shelter to the learning and law of the Romans, against the destructive ravages of the Barbarians. It in some measure broke the fetters of slavery and emancipated mankind from the tyranny of the temporal prince. The Papal see on the contrary, almost counterbalanced the benefits it bestowed, by subjecting nations to a spiritual despotism. The priest instead of being the comforter of sinful souls, disregarded his duty, and entered into the world of politics. The doctrine of intolerance was encouraged by the Church of Rome to a great extent, and the inquisitorial courts were established to torment mankind, because they differed in opinion. Though it was the receptable of the Roman learning, its policy was to encourage ignorance, and thus augment its own power. Excommunication was the instrument with which it effected its ends.

A. NARRAIN ROW.

Russell's Modern Europe.

Q. 1. What was Edward the 1st's policy towards Wales? the same towards Scotland?

A. 1. The policy pursued by Edward I. towards Wales was what would be followed by every ambitious and politic monarch. Though he acted on the principle that might is right, yet he thought it proper to give an air of justice to his cause. He revived his claim of feudal superiority over the kingdom of Wales, invaded that country with a great army, and prevailed over Lleweyllen from his superior force and valor, to acknowledge him as his paramount lord. As the Welsh prince was soon after provoked to rebellion he confiscated Wales as a punishment for his treason and established the laws of England in that country. In order to secure his conquest, he ordered David the Welsh prince to be tried and executed for treason, and inhumanly massacred all the Welsh bards from a conviction that he could then easily subdue the people when their minds ceased to be animated by the songs of those minstrels which were sung on days of festivity.

He followed very nearly the same course of conduct in regard to Scotland. When a dispute arose about the succession to the Scotch throne, and was referred to him for decision, he asserted his claim of feudal superiority over Scotland, and demanded possession of the kingdom in order that he might be able to deliver it to that competitor, whose claim should appear preferable. He gave decision in favor of Baliol and having received oath of fealty from him, put him in possession of the kingdom. However he soon after provoked him to rebellion by frequent insults and indignities and proceeded to the final conquest of his kingdom. He caused William Wallace the illustrious hero and patriot of Scotland to be executed for having defended his native country and gave orders for the abolition of all documents calculated to preserve the ideas of its ancient dependence and valor.

T. MOOTOOSAWMY.

Q. 2. Trace the rise of the British House of Commons.

A. 2. The numerous wars which Edward I. carried on in his reign exhausted his treasures, and taught him that the most expeditious way of obtaining subsidies was by raising into importance the democratic part of the nations. Accordingly he sent orders to the sheriffs of counties to send two deputies together with two knights of the shire from each borough with full power to consent to such demands as the kings exigencies might necessitate him to make. This is the manner in which the House of Commons came into existence. Some historians are of opinion that the House of Commons sprang up in the reign of Henry III. It is true but it was the result of selfishness and faction, and was never convened afterwards till the accession of Edward I. Therefore the reign of Edward I. is the true era of the House of Commons.

T. KISTNAMA CHARRY.

Q. 3. Draw the character of Edward I.

A. 3. Edward I was one of the greatest monarchs that ever sat upon the throne of England. He was a prince of unbounded valor and great capacity. He was politic, and ambitious in the extreme, and made no scruple to trample upon justice and to neglect all sentiments of magnamity and virtue for the gratification of his ambition. But in all the enterprizes in which he was engaged his abilities both

as a warrior and a politician were equally conspicuous. His domestic policy though not the result of any generous motive was highly favorable to the prosperity of the kingdom. He curbed the exorbitant power of the great, brought into political importance the lower orders of the people and so well provided for the regular distribution of justice that he is honored with the appellation of English Justinian. In a word he is entitled to our highest admiration and respect as a great warrior and an able statesman.

T. MOOTOOSAWMY.

Q. 4. Give the history of Robert Bruce?

A. 4. Robert Bruce grandson of that Bruce who appeared as a claimant to the throne of Scotland served in the English army. He saw his native country trembling under the rod of the English monarch; lamented the loss of its independence, and waiting for an opportunity to serve his countrymen and redeem them from those indignities to which they were exposed, left England, when the Scotch were in want of a suitable commander. He went to Dumfries where many of the nobles were assembled and prevailed upon them to second him in his services to his country, but Comyn who had taken measures with the English king refused to acquiesce in the determination, come to by the rest. Bruce, learning that Comyn intended to deceive his party, dispatched him privately. Bruce was successful in uniting his countrymen, went to Scone, and was crowned king. In the reign of Edward II. of England, he fought the famous battle of Bannockburn where the English were totally defeated. He made incursions into the North of England, and sent his brother with an army to invade Ireland. He died leaving his kingdom to his son David Bruce, who was a minor.

A. NARRAIN ROW.

Q. 7. State what measures Philip IV. pursued against the Knights Templars.

A. 7. The measures which Philip IV. adopted towards the Knights Templars were entirely unjust and cruel. Envious of their wealth he endeavoured to involve the whole order in one universal ruin. The people of Paris rose in tumult against the king for having frequently altered the value of the coin. This served him as an excellent opportunity for effecting the destruction of that order. He accused them of having been concerned in the tumult, and imputed

to them many atrocious and cruel acts of sin. He therefore ordered them to be put to the rack, and by heightening their torment forced out of them confessions of the crimes of which they were accused. In all this barbarous injustice Pope Clement V. a Frenchman and entirely in the interest of Philip agreed without any scruple, and in a council called at Vienne, he abolished the whole order in the year A. D. 1314.

V. RAJAGOPAUL.

Q. 8. Describe the battles of Cressy, Poictiers, Agincourt, give their dates.

A. 8. As soon as Edward III. passed the river Somme he was overtaken by Philip of Valois and finding retreat impracticable he drew up his army in the plains of Cressy. He divided his army into three lines, the first of which was commanded by the Black prince, the second by the Earls of Arundel and Northampton and the king himself took the direction of the third. The French army also was divided into three lines ; the first consisted of Genoese cross bowmen, the second was commanded by the Count of Alencon and Philip took the command of the third. The battle was fierce and bloody and the day was won by the English. This famous battle was fought in the year 1346.

The prince of Wales encouraged by past success entered France at the head of twelve thousand men, and the French king insulted at this measure advanced with a more numerous army and overtook him at Maupertius near Poictiers. John gave him battle and the French were again defeated and their king was taken prisoner. This battle was fought in the year 1356. The famous battle of Agincourt was fought between Henry V. of England and the French general constable D'Albert. The English army consisted of fifteen thousand while the French army consisted of nearly four times the number. Henry took his post on a narrow ground guarded by woods on each flank ; he ordered Pallisadoes to be fixed in the front and the English archers sent from behind a shower of arrows. The struggle lasted till night and the French army was every where thrown into confusion. Henry taking advantage of this confusion ordered his men to fall upon the enemy who were defeated with great slaughter. This victory was gained by the English in the year 1456.

P VURDA CHARRY.

Q. 9. Who were the "Companies?" How did Charles V. of France rid himself of them? Give a short account of the contests between Peter the Cruel and Henry of Trastamara.

A. 9. Peter the Cruel rendered himself odious to his subjects by having his queen who was a princess of France, poisoned, and by the severity of his Government. Henry of Trastamara finding himself in danger fled into France, and craved the assistance of Charles V. The French well disposed to assist him in consequence of the cruel conduct of Peter towards their princess. Charles V. employed Du Guesclin to negotiate with the leaders of the "Companies."

The "Companies" were those disbanded soldiers who refused to lay down their arms after the cessation of hostilities between France and England in the time of Edward III. Some English and Gascon gentlemen were not ashamed to take the command of them. These bodies of soldiers employed themselves in ravaging the country with impunity. Charles V. got himself rid of them by having them conducted by Henry of Trastamara and Du Guesclin into Spain. A battle was fought between Peter the Cruel and his natural brother, in which the former was defeated and obliged to flee to Guienne in order to crave the assistance of the Black Prince, who obtained the consent of his father to assist the fallen monarch. The first loss which Henry of Trastamara suffered was the recall of the "Companies" so great was the military reputation of the Black Prince that many of them sided with him. Henry assisted by the King of Arragon and beloved by his subjects were able to bring into the field an army of seventy thousand men. Relying on his large army, he gave battle to the Black Prince contrary to the advice of Du Guesclin in which he was totally defeated and Du Guesclin taken prisoner. Peter was re-instated on the throne of Spain. The Black Prince had reasons of complaint against Peter, because he refused to pay the stipulated pay of the English army, and when his subjects again arose against him he left him to his fate. Henry of Trastamara and Du Guesclin again appeared in Spain at the head of a large army. Peter was defeated and taken prisoner, and Henry is said to have killed him with his own hands in consequence of his cruelties. Henry mounted the throne notwithing that he was a bastard.

A. Dique.

Shakspeare's Macbeth.

Q. 1. Should you class Macbeth amongst the Historical Dramas of Shakspeare? point out in what it differs from those strictly called so.

A. 1. Shakspeare's Macbeth should not be classed among his historical dramas; for there was no correct account of the Scottish history so far back as the reign of Edward the Confessor. Shakspeare drew his materials from Holinshed and other inaccurate writers and introduced into his drama characters of whom we see no mention made in history. He represents certain events to have occurred in places quite different from those mentioned in history. For instance, Shakspeare represents Duncan to have been murdered by Macbeth in the castle of Inverness but the real fact seems to be that he died in his own castle of Dunsinaine. This drama differs from strict historical dramas in the following respects. In strict historical dramas the poet is not allowed to deviate from the facts mentioned in history, he has no right to modify them or change their order so as to suit them to his plot; but in Macbeth Shakspeare introduces the witches in order to carry out the main object of his play; he creates Banquo who probably never existed, and introduces other personages whom his imagination alone could conceive.

P. Vurda Charry.

Q. 2. The object of tragedy has been said to be "to purify the passions by moving pity and terror"—illustrate this from Macbeth.

A. 2. The play of Macbeth like every other play of Shakspeare purifies the passions by awakening our pity and terror. In Macbeth we see a man of noble mind naturally not prone to cruelty but unfortunately ambitious and indecisive in his character, and we find a variety of unforesen circumstances concur in stirring up his ambition to an undue degree and in bringing about the overthrow of his character. We rejoice to see him struggle though feebly to persevere in his virtuous course and look, at last with pity upon his fall mostly occasioned through his weakness. Then the corroding reproaches of his conscience, the perpetual jealousy and fear that distract his mind, the horrible sight of the ghost of Banquo, the madness of Lady Macbeth,

and the miserable end of Macbeth all strike us with the utmost horror and make an indelible impression upon our mind of the fatal consequences of criminal ambition. We become so much horrified at the fate of Macbeth that we shrink from unbounded ambition with fear and make it a principle to keep all our passions under the control of reason and not to allow them to break through the restraints of virtue though we may thereby secure the glory of an Alexander, the power of a Cæsar and the pomp of a Xerxes.

T. Mootoosawmy.

Q. 4. Give a sketch of the character of Macbeth, and compare him with any other of the daring bad men described by Shakspeare in any play you may have read.

A. 4. Macbeth the hero of this tragedy is represented in the beginning of the play, as possessed of many eminent virtues, as a distinguished hero of his age, as extremely loyal, and as the darling of the people. His ambition is first excited by the prophecy of the witches who ultimately promised him the crown. He is irresolute, and is possessed of a weak intellect; although he arrives at true conclusions, yet he listens with an ear of credulity to the eloquence and the glittering yet fallacious arguments of his wife. His virtuous and honourable principles are laid prostrate at the ferocity of his wife, a woman of unbounded ambition, at whose instigation he perpetrates the murder of "gracious Duncan" under the roof of hospitality. "One crime ever draws on another, and the throne of a usurper is but a bed of thorns;" although he was horror-struck at the murder of Duncan, yet thinking himself insecure as long as Banquo lived, whose superior genius and abilities he feared; enters in a bloody course, and wreaks his inhuman vengeance, upon all those who become objects of his suspicion, almost without any "compunctious visitings of nature." He becomes an object of detestation to his subjects over whom he tyrannises; he is censured by the upbraidings of his conscience, and becomes a scourge to himself.

Comparing Macbeth with Richard III. another daring bad man described by Shakspeare, we observe that although both of them are actuated by exorbitant ambition, rise against their sovereigns, and usurp the throne; yet there is a striking difference between the characters of the two heroes. Richard is firm of purpose and resolute, and possessed of a strong intellect, is capable of forming

plans and carrying them into execution without any assistance. But Macbeth is extremely irresolute, is possessed of a weak intellect, and is unable to pursue any course of action himself. If Lady Macbeth had been entirely devoid of ambition, tender-hearted, and humane, Macbeth would have been a totally different person from what he is now.

P. CHINNATUMBEE.

Q. 5. Paraphrase the soliloquy of Macbeth Act I., Scene 7.

"If it were done," &c. to the end.

A. 5. If the murder of Duncan, when it is executed, were not to be followed by fatal consequences to myself, then it would be proper to commit that act as quickly as possible: if the assassination could prevent evil consequences from flowing, and ensure success with its cessation; if this single blow were all I should have to do, and this anxiety were all I should have to suffer in this world, which is but a single point in the ocean of eternity, then I would run the risk of what might happen to me in the future world. But in the commission of such murders, we still have sentence passed upon us in this world: by committing bloody deeds, we only set a bad example to others, who, taking the hint from us, in return torment the originator of the crime, and inflict the fatal blow upon him. In this world impartial justice condemns us to drink the cup, containing poisonous materials and intended by us to take away another's life. Duncan is entitled to security in this castle on two grounds: first, as I am connected with him by blood and as I am his subject, I am loudly called on to abstain from committing the crime: secondly, as I am his entertainer, I should prevent others from killing him, and not imbrue my own hands in his blood. Moreover this king has exercised his office so gently, and has been so equitable in his administration, that his good qualities will take up his cause, and like angels exclaim with a loud voice against the execrable crime. Compassion, as in the case of an innocent child, riding on the blast, or like angels of heaven mounted upon the invisible atmosphere, shall make known to all the bloody crime, that the sympathetic floods flowing from every eye shall drown the wind. I have no incentive to stimulate me towards the execution of my design but over-leaping ambition which in attempting to grasp the object, misses it and falls on the other side.

C. TEROOVENGADUM.

Q. 6. Explain the following passages:

1. *Banquo.*

"That trusted home
Might yet enkindle you unto the crown,
Besides the thane of Cawdor."

2. *Macbeth.*

"My thought whose murder is yet but fantastical
Shakes so my single state of man, that function
Is smothered in surmise; and nothing is
But what is not—"

3. *Lady Macbeth.*

"Thou wouldst be great;
Art not without ambition; but without
The illness should attend it. What thou would'st highly,
That would'st thou holily; would'st not play false,
And yet would'st wrongly win; thou d'st have great Glamis
That which cries "Thus thou must do, if thou have it:
And that which rather thou dost fear to do
Than wish'st should be undone."

4. *Macbeth.*

Go prick thy face, and over-red thy fear
Thou lily liver'd boy—what soldiers, patch?
Death of thy soul! those linen cheeks of thine
Are counsellors to fear—what soldiers whey face?

A. 6. If you confided in the prophecy of the witches, it might excite you to get the throne besides the thaneship of Cawdor.

2. Macbeth. Though the murder which enters my thoughts is only imaginary, yet it shakes my weak mind so much that my faculties are lost in conjecturing the future, and nothing exists in me but what is really future.

3. You wish to become king, you are not devoid of ambition, but you are destitute of that stern unscrupulousness which should necessarily attend it. That which you are so anxious to get, you wish to get in an innocent manner. You are not willing to act the part of a traitor, and yet wish to obtain that which cannot be won but by unjust means. Great Glamis, you wish to possess that which says plainly, this action you must do if you wish to have it, an action which you do not wish so much to leave undone as you are afraid of doing it.

P. Vurda Charry.

Q. 7. In what light do you regard the witches and their agency in this play.

A. 7 Shakspeare represents the witches as real beings that influence the affairs of men, by their enchantments. But I think, they are rather the creatures of the imagination, when human passions are strongly excited. Whatever may be the nature of the witches, they play the most important part in the tragedy of Macbeth. It is they, together with Lady Macbeth, that keep up the tragic interest of this play. It is they that bring about, the principal incidents, and developе the story of the drama. In a word the whole play would lose its interest and beauty if no such beings were introduced.

V. KISTNAMA CHARRY.

Q. 9. Do you see any peculiar beauty and appropriateness in the following passage? Comment on it.

Act I. Scene 6. *Duncan.*

This castle hath a pleasant seat; the air
Nimbly and sweetly recommends itself
Unto our gentle senses.

Banquo.

This guest of summer,
The temple-haunting martlet, does approve
By his lov'd mansionry, that the heaven's breath
Smells wooingly here; no jutty, frieze, buttress
Nor coigne of vantage, but this bird hath made
His pendent bed and procreant cradle: where they
Most breed and haunt, I have observed the air
Is delicate.

A. 9. The following passage

"This castle hath a pleasant seat, &c." is introduced here by Shakspeare with peculiar beauty and propriety and serves to show his wonderful knowledge of human nature. It gives that repose to the mind which it requires after the toils and fatigues of war. The conversation naturally turns upon the beauty of the scene and the pleasantness of the climate, and most beautifully contrasts with the scene of horror that is to follow. On approaching Macbeth's castle, Banquo observes the martlet building its nest on the battlements and most naturally declares;—

This guest of summer
The temple-haunting martlet, does approve
By his lov'd mansionry, that the heaven's breath
Smells wooingly here; &c. &c. &c.

P. VURDA CHARRY.

Milton's Comus.

Q. 1. What gave rise to the fable of Comus?

A 1. An accident in the family of Sir John Egerton earl of Bridgewater gave rise to the fable of Comus. The event of the earl's elevation to the Presidentship of Wales was celebrated with great pomp at Ludlow castle, where many of the nobles and gentry were present. The two sons of Egerton and his daughter lady Alice were on their way to their father's seat in order to congratulate him, when they were overtaken by night in Haywood forest. The brothers in attempting to find the proper path, lost their sister, who was thus left alone in the midst of a forest and in the darkness of night. This accident insignificant in itself, Milton made the subject of a thousand lines, which abound with noble sentiments and elegant expressions.

P. Varda Charry.

Q. 2. In what does the masque differ from the more regular drama?

A. 2. The object of a regular drama is to describe the different passions that act upon the human mind, and the tendencies they create in an individual, and the course of conduct which they urge him to adopt. In the drama, the poet is bound to restrain his imagination, and keep his representations as true to nature as possible. But in the mask human and super-human beings may be made to co-operate in developing the story; reality and visions, men and gods are intermingled to give to the fable an air of etherial sublimity and render the poem graceful by a series of scenic illusions. The mask acts more upon the senses, than upon the intellect; and is inalienably connected with music and dancing, painting and sculpture. The mask has nothing to do with the passions of the human breast. It does not possess that unity of interest which pervades a regular drama, and which alone is highly characteristic of dramatic literature. It does not command our sympathy, sorrow and compassion, while the essence of a drama is to make us feel as the actors in it do. In short the dramatist is a close observer of nature, men and passions, while the writer of a mask feeds upon his own fancy and classic learning.

A. Narrain Row.

Q. 3. Paraphrase these two passages,—

" Can any mortal mixture of earth's mould
Breathe such divine ravishing enchantment ?
Sure something holy lodges in that breast,
And with these raptures moves the vocal aid
To testifiy his hidden residence.
How sweetly did they float upon the wings
Of silence, through the empty vaulted-night,
At every fall smoothing the raven-down
Of darkness till it smiled !"

" So dear to heav'n is saintly chastity,
That when a soul is found sincerely so,
A thousand liveried angels lackey her,
And in clear dream and solemn vision,
Tell her of things that no gross ear can hear;
Till oft converse with heavenly habitants
Begin to cast a beam on the outward shape,
The unpolluted temple of the mind,
And turns it by degrees to the soul's essence,
Till all be made immortal."

A. 3. 1st. Is it in the power of any mortal made out of the dust of this earth, to pour out such holy and enchanting strains of music ? Undoubtedly there lies something sacred in that bosom which gently agitates with strains of music the atmosphere which is a vehicle of sound, and thus proves its concealed existence. How melodiously did they travel upon the wings of silence through a night fearfully calm and deadly dark, softening at every stop the fierce look of night, till it assumed a pleasing appearance.

2d. Holy chastity is such a favourite of heaven, that when a woman is truly possessed of that virtue, thousands of angels dressed in splendid robes attend her every where, and inform her of solemn and supernatural things through dreams—things to which no wicked men can have access, till frequent conversation with the beings of another world begins to illumine the body,—the uncontaminated abode of the mind, and spiritualises it by degrees till every particle of the system is made immortal.

V. KISTNAMA CHARRY.

Q. 5. Explain fully these two passages:

" He that has light within his own clear breast
May sit in the centre, and enjoy bright day:
But he that hides a dark soul and foul thoughts,
Benighted walks under the mid-day sun;
Himself is his own dungeon."

If every just man, that now pines with want
Had but a moderate and beseeming share
Of that which lewdly pampered luxury
Now heaps upon some few with vast excess,
Nature's full blessings would be well dispensed
In unsuperfluous even proportion,
And she no whit encumber'd with her store:
And thus the Giver would be better thank'd,
His praise due paid: for swinish gluttony
Ne'er looks to Heaven amidst the gorgeous feast,
But with besotted base ingratitude
Crams and blasphemes his Feeder.

A. 5. He whose uncorrupted heart is enlightened by reason, may live in the centre of the solid earth, and enjoy happiness, but he who has a heart corrupted by base thoughts is miserable amidst all sources of happiness, in short he is a plague to himself.

If every virtuous man that is now oppressed by poverty had a tolerable and proper share of those treasures which, some few luxurious men enjoy with profusion, then all the blessings of nature would be equally distributed without any waste or profusion, nature would not be over-loaded with her treasures, and thanks would be more extensively offered to the All-giver, and the tribute of praise due to him would be better paid, for persons who indulge themselves in luxury do not think of God in their sumptuous festivals, and with mean ungratefulness stuff themselves, and speak irreverently of God who feeds them.

P. CHINNATUMBEE.

Political Economy.

Q. (1) What is the subject matter of Political Economy?

A. (1.) The science of Political Economy treats of the production, distribution and consumption of wealth, the causes which tend to its augmentation or diminution, and the influence which these causes exert upon the happiness or misery of a nation.

A. NARRAIN ROW.

Q. (2.) Define wealth and state the various requisites to its production.

A. (2.) Wealth consists in those things that can be made articles of commerce, or which have an exchangeable value. The chief requisites to its production are the security of property, freedom of industry and the division of labor. Wealth is created by the labor of the farmer and the manufacturer; and its production is encouraged and facilitated by commerce, and the exclusive application of the industry and energy of individuals to particular departments.

A. NARRAIN ROW.

Q. (3.) Give instances to illustrate and explain the operation of capital in the production of wealth.

A. (3.) The farmer and manufacturer by employing their Capital not only benefit themselves, but confer innumerable advantages upon Society. They afford work to the industrious poor, who receive wages, and reproduce with increase what they consume; they supply the wants of nations, furnish them with corn and other necessaries of life, provide them with clothing and other comforts; and enrich themselves with the profits they derive from the employment of their capital. In all undertakings, capital is every thing; the farmer could not cultivate his fields and raise corn in them without it. The manufacturer could not set his mills in motion without investing capital, for the purpose of paying wages, and keeping his machines in good order. The employment of Capital therefore in whatever branch it may be invested is conducive to an increase of wealth, by affording work to the poorer classes and satisfying the wants of all

consumers in general. One who employs his capital in commerce derives in the same way considerable profits and rends countries happy, by exchanging the surplus commodities of one nation with those of another.

A. NARRAIN ROW.

Q. (5.) State briefly by what means the value of the precious metals equalises itself in all parts of the civilized world.

A. (5.) Whenever there is a redundancy of precious metals in one country, there is a corresponding deficiency in another. The former exports them to the latter and receives in return commodities which it stands in need of. In this way, the value of the precious metals, equalises itself in all parts of the civilized world.

C. TEROOVENGADUM.

Q. (6.) Under what principal heads may the trade of a country be divided? Explain how trade contributes to the production of wealth.

A. (6.) The trade of a country may be divided into three principal parts—the home-trade, which includes all the internal and the coasting trade of a country, the foreign trade which consists in exchanging the commodities of our counties for those of another, and the carrying trade which consists in carrying the commodities of one country to another. Trade contributes to the production of wealth not immediately by raising raw produce like agriculture, or by working up raw materials like manufactures, but by giving an additional value to commodities by bringing them from places where they are most plentiful and cheapest to places where they are scarce. It gives a stimulus to industry by providing for an extended distribution of commodities. It enables us to give in exchange what we want less for what we want more. It increases the comforts and enjoyments of a people, the objects of national wealth.

P. CHINNATHUMBEE.

Q. (8.) Explain in what manner a foreign trade is mutually advantageous to the countries engaged in it.

A. (8.) That a foreign trade is mutually advantageous to the countries engaged in it may be explained in the following manner.

There is a greater diversity between the productive powers of the soil of different countries than there is between the different parts of the same country. To produce in England, for instance, the sweet wines of Portugal and the fragrant spices of the East, would require a greater quantity of capital and labour than to raise them in their respective countries. There are a multitude of products of which without foreign commerce, a country would be entirely deprived : England would not receive raw cotton, and the spices of the East: the East would not receive the eminent manufactured articles of the West. By giving different soils and different productive powers to countries, Providence seems to have intended that mutual intercourse between nations should benefit them. By permitting different nations to employ their capital and labour in those branches of industry in which the geographical position, the natural capabilities of the soil enable them to excel, commerce multiplies the productions of art to an indefinite extent and circulates them among all the inhabitants of the globe.

C. TEROOVENGADUM.

Q. (9.) Upon what principle is an extensive competition among traders more generally beneficial than an extensive competition among purchasers ?

A. (9.) An extensive competition among traders reduces the price of a commodity and brings it within the reach of the lower classes of people, because these rival dealers endeavour to undersell each other. While an extensive competition among consumers raises the price of the commodities, because they endeavour to outbid each other. In this case the advantage lies wholly on the side of the traders while in the former the people were benefited. Although these traders are anxious to narrow competition among themselves yet they endeavour to enlarge it among dealers of other commodities. Therefore an extensive competition among traders is more generally beneficial than an extensive competition among purchasers.

A. DIQUE.

Q. (11.) Show that the principle of a division of labor is equally applicable to different countries as to different individuals.

A. 11. By the principle of the division of labor among individuals, every man, unable to produce every thing for himself concentrates

his powers and faculties on one particular branch of industry, attains skill and perfection in it and exchanges the fruits of his labor with those of others whose industry is exerted in those branches to which their tastes are congenial. Thus the country enjoys happiness and prosperity. In the same way, a country being ill adapted for the production of all commodities, which it wants, confines itself to the raising of goods for which it is peculiarly fitted and exchanges her products with those of foreign countries which pursue a similar plan. Thus the country is furnished with all the goods it requires and enjoys prosperity.

C. TEROOVENGADUM.

12. *Q.* Explain the use of a Bill of Exchange in Commercial transactions, and the cause of the variation in the exchange both real and nominal.

A. 12. The use of a bill of exchange is to discharge a debt which an invidual owes to a person in some foreign country without actually sending bullion in payment of the debt. This object is effected in the following manner. The debtor inquires whether there is any merchant in his own country who has to receive a debt from the country where his creditor lives. On paying his debt to the merchant he receives a bill from him drawn upon the latter's debtor in the foreign country and has the name of his own creditor inserted in the bill. He then forwards the bill to his creditor who receives the amount of the bill from the debtor of the merchant by whom the bill was drawn.

The real variation in the exchange is occasioned by the proportion of the exports to the imports. When the exports exceed equal to or fall short of the imports the exchange is favorable equal or unfavorable. But the nominal variation in the exchange is caused by a depreciation of the currency. When the value of the English currency, for example falls 25 per cent. then an English bill will partake of this depreciation. An English bill of 100 £ will only represent a foreign bill of 75 £ though it nominally retains the value of hundred. Though the imports and exports of England are equal yet, owing to the depreciation of the currency, the value of the imports will appear to have exceeded that of the exports.

T. MOOTOOSAWMY.

Mental Philosophy.

Q. 1 Explain the fallacy in Hume's argument against miracles.

A. 1. Hume maintained that miracles are incredible, because they are opposed to the ordinary course of nature. This argument is fallacious, because what renders an event miraculous is the fact of its being opposed to our uniform experience. If the miracles were said to have been wrought in ordinary times and by ordinary agents, Hume's argument would have been quite just, but they are said to have taken place for a particular purpose, and to have been produced by new and extraordinary agents. To say therefore that miracles are incredible, because they are violations of our uniform experience is only saying in other words that miracles are incredible because they are miracles.

P. VURDA CHARRY.

Q. 2. What objections may be raised against light reading ?

A. 2. Objections that may be urged against light reading are that it is productive of two evils of the most dangerous character. 1st. Our imagination, uncontrolled by reason, takes a wild flight, and is occupied with its waking dreams. Our intellect is thus withdrawn from subjects of the most important nature and is materially injured. 2d. The harmony that ought to exist between the moral emotions and the actual conduct is annihilated. If we frequently listen, in real life, with emotions of pity to the earnest supplication of the distressed, without corresponding efforts for their relief, that moral condition is produced which we call selfishness. Now fictitious tales have a similar tendency. By continual perusal, emotions of sympathy are excited without corresponding efforts and a cold barren sentimentalism is produced.

C. TEROOVENGADUM.

Q. 4. Define memory, recollection, conception, perception, abstraction, and imagination.

A. 4. Memory is that process of the mind by which we retain the impression of facts. Recollection is that modification of memory by

which we recall facts with which memory is stored. Conception is the memory of a perception, or the recalling to our mind, of actual scenes and events in a vivid manner: thus a painter can draw from conception the picture of a landscape after he has once seen it. Perception is the impression of an external body conveyed to the mind by our senses. Abstraction is that process of the mind by which we disjoin qualities from the body with which they are combined, contemplate them individually, and give them a "local habitation and a name." Imagination is that process of the mind by which we separate scenes or classes of events into their component elements and form a new compound which has no real existence in nature.

C. TEROOVENGADUM.

Q. 5. What evidence have we of the existence of mind and matter?

A. 5. We recognize the existence of mind by its several functions and the existence of matter by its properties. Mind is known to us by the attributes of thinking, willing, remembering and reasoning: and matter is known to us by the properties of extension and solidity.

C. TEROOVENGADUM.

Q. 8. Explain why mathematical reasoning is less liable to error than political or moral reasoning.

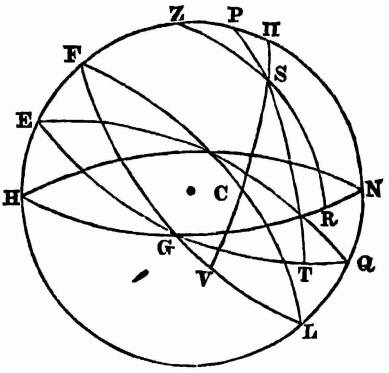
A. 8. Mathematical reasoning is less liable to error than political or moral reasoning for the following reasons. 1st. That nothing is taken for granted or depends upon mere authority. The mathematician argues upon simple relations of quantity and space, which are capable of being measured and ascertained with perfect accuracy. 2d. If we have any doubt in regard to the truth of a proposition we are only to refer to its demonstration and be immediately satisfied. 3d. The terms employed are clearly and distinctly defined as to their meaning, so that there is no room for fallacy or ambiguity with regard to the use of words. 4th. The several steps in mathematical reasoning follow each other so closely and connectedly that there is no possibility of losing sight of their relations.

P. VURDA CHARRY.

Astronomy.

Q 1. Illustrate by a figure representing the sphere of the heavens, the terms, right ascension, declination, polar distance, azimuth, &c. (*a*) Show that the latitude of a place is equal to the altitude of the pole.

A. 1. Let H Z N L represent the sphere of the heavens, Z P N the Meridian of a place on the earth, Z its zenith, H N its horizon, P the pole of the heavens, E Q the equator, ♈ the pole of the ecliptic, F L the ecliptic, S star, and G the intersection of the equinoctial with the ecliptic. Join Z P, and ♈ with S and produce Z S to to meet H N in R, P S to meet E Q in T and ♈ S to meet F L in V.



Now S R is the altitude of the star.
Z S zenith distance.
P S the polar distance.
S T the declination.
G T or ⌞ G P T the right ascension.
S V the latitude.
G V or G ♈ V the longitude.
N R or N Z R the azimuth.

(*a*) Let *l* represent the latitude of the place and *a* the altitude of the pole.

$$l = Z E = E P - Z P = 90° - Z P = Z N - Z P$$
$$= P N = a$$

Q. 2. Point out the various methods of finding the latitude of a place ; (*a*) Determine the latitude from two equal altitudes of the sun observed before and after noon.

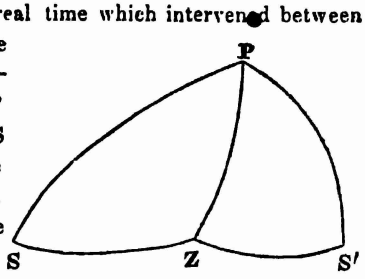
A. 2. There are several methods of determining the latitude of a place. 1st. Observe the meridional altitudes of a circumpolar star with a transit circle or with a mural circle ; and the semisum of the

altitudes is equal to the altitude of the pole which in the 1st answer was shown to be same as be latitude of the place.

2ndly. Observe the altitude of any star whose right ascension and declination are known, and ascertaining the right ascension of the mid-heaven from the time of the place, we can easily find our latitude by the solution of the triangle P S Z, where Z S and P S are the coaltitude and codeclination of the star and Z P S is the difference of its right ascension and that of the mid-heaven.

3dly. If we are on the sea where the transit cannot be used, continue observing the altitudes of the sun from a little before the noon and find its altitude when it is a minimum which would its distance from the horizon when on the meridian. The difference of the altitude and polar distance of the sun is equal to the altitude of the pole which is the latitude of the place.

4thly. or (*l*) Observe the equal altitudes of the sun a little before, and after the noon and the sidereal time which intervened between the two observations. Now we will find the latitude from the triangle P Z S or P S Z′, where P is the pole, Z the zenith and S and S′ the two positions of the sun east and west of the meridian. Let S Z the compliment of the altitude = *a*



S P the polar distance of the sun = *b*
S P Z = ½ the interval observed × 15° = *h*
From Trigonometry
Cos S Z = Cos S P. Cos P Z — Sin S P. Sin P Z. Cos S P Z
or Cos *a* = Cos *b*. Cos *l* — Sin *b* Sin *l* Sin *h*
∴ *l* may be determined.

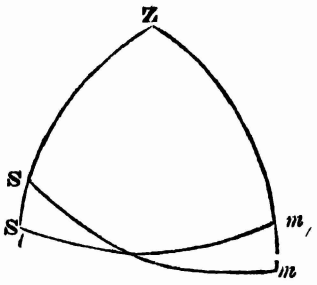
T. Mootoosawmy.

Q. 3. Point out different methods of finding the longitude. (*a*) Find the longitude by the moon's distance from a fixed star.

A. 3. In order to find the longitude of a place, we must know the local times of that place and of the place from whose meridian, longitude is reckoned, at the same instant of absolute time. Then the difference of the local times will be the longitude of that place. This

moment of absolute time is fixed by the eclipses of Jupiter's satellites, lunar eclipses, lunar distances, and signals. Excepting the method of finding longitude by lunar distances, objections may be raised to each of the rest. The lunar distances therefore have superseded the others and is the one now in constant use.

(α) As the moon moves nearly 13° a day, its distances from the fixed stars are continually altering. Any one of these distances therefore marks a distinct moment of absolute time. In the nautical almanac are registered the distances of the moon from the principal fixed stars, as would be seen at Greenwich, and corrected for refraction and $\|^x$, and also the local times corresponding to those distances. Our object now is to clear the observed distance of the effects of refraction and $\|^x$.

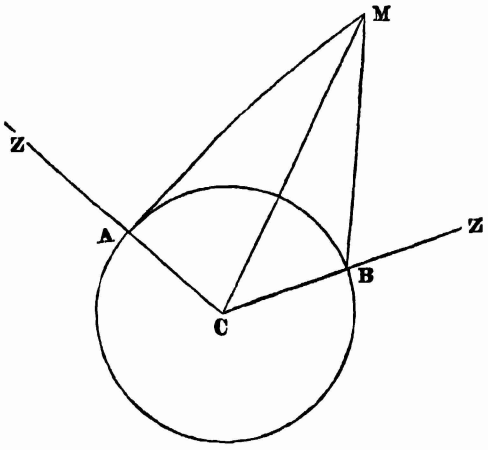


Let Z be the zenith, S a fixed star and m the position of the moon. Since a fixed star has no $\|^x$, it is affected only by refraction, $\therefore$ its true place is below the apparent. Let therefore S, be its true place, and as the moon's true place is above the apparent, let m, be the true place of the moon. Now in the $\triangle$ Z S m, Z S and Z m the apparent zenith distances of the star and the moon are obtained by observation, and S m the apparent distance of the moon from S is also observed; $\therefore$ the $\angle$ S Z m is known. Now in the $\triangle$ Z S, m, Z S, and Z m, are known and knowing the $\angle$ S, Z m, we calculate S, m, the true distance of the moon from the star. The local time of Greenwich corresponding to this distance is given by the tables, and knowing the local time of the place, the difference of the two local times multiplied by 15° gives the longitude of the place.

P. Vurda Charry.

Q. 5. Prove that p = P. sin $(Z + p)$, where p denotes parallax, P horizontal parallax; Z the zenith distance. (α) Show how P may be determined by means of two observations made in the same meridian. (β) Show how the sun's parallax may be determined from the transit of Venus. (γ) The Sun's parallax being 8″·6, determine his distance from the earth.

A. 5. (*a*) Let A and B be two places on the same meridian, C the centre of the earth; join C A and C B; let M be a planet. Join M A, M C and M B. Now A M C is the parallax at A and let it be equal to p; and B M C is the parallax of the body at B and let it be equal to p'. Produce C A and C B to Z′ and Z, which are their zeniths respectively; let Z′ be the zenith distance of the body from the place A and Z the zenith distance of the body for the place B: and let $\overline{L \pm L'}$ be the sum or difference of the latitudes for the two places.



Now in the quadrilateral fig. M A C B

$$p + p' = 360 - (180 - Z' + 180 - Z + \overline{L \pm L'})$$

$$= Z + Z' - \overline{L \pm L'}$$

But $p = P \cdot \sin Z$.

$$p' = P \cdot \sin Z'$$

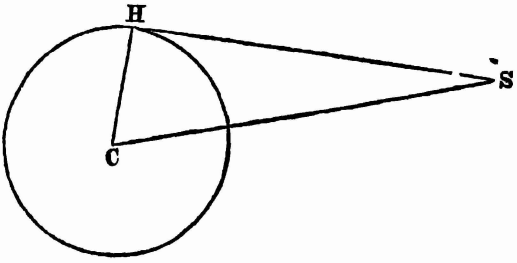
$$\therefore p + p' = P(\sin Z + \sin Z')$$

$$\therefore P(\sin Z + \sin Z') = Z + Z' - \overline{L \pm L'}$$

$$\therefore P = \frac{Z + Z' - \overline{L \pm L'}}{\sin Z + \sin Z'}$$

$\therefore$ P hor $\|^x$ is known.

(γ) Let S be the sun, C the centre of the earth, H S C the horizontal $\|^x$ of the sun; to find his distance from the earth.



Now $\frac{C S}{C H}$ = cosec 8″.6

$\therefore$ C S = cosec 8·6 × C H

= $\frac{4000 \text{ miles}}{.00041225}$ = $\frac{4,0000,0000}{4.1225}$

= 95 millions of miles nearly.

C. TEROOVENGADUM.

Q. 7. Distinguish accurately between sidereal, solar, and mean solar time; also between the tropical, sidereal and anomalistic years.

(*a*) Express the sidereal interval. $9^h\ 13^m\ 28^s$ in mean time.

A. 7. Sidereal time is regulated by the apparent motion of the stars or gama and a sidereal day is the time which elapses between two consecutive returns of gama to the same meridian. Mean solar time is the time regulated by the motion of the mean sun which in addition to the apparent motion it has in common with the stars is supposed to move uniformly along the equator at the rate of 1° every day. This is the time shown by every clock, but by the true solar time, we mean that which is indicated by the dial or that which takes into account the irregular movement of the sun. The tropical year is the time which elapses between the two successive conjunctions of the sun and the equinox; the sidereal year is the time which intervenes between the two consecutive conjunctions of the sun and a star; and the anomalistic year is the time which the sun takes to move from perijee to perijee. The mean sun would move over a degree every day from west to east in addition to the motion it has in common with the stars. The mean sun comes to the meridian 4 minutes later than a star, and hence a mean solar day is greater than a sidereal day.

$\therefore$ A : $9^h\ 13^m\ 28^s$: : $23^h\ 56^m$: 24

$\therefore$ A : 33208 : : 86160 ; 86400

: : 359 : 360

$\therefore$ A = $33208 \times \frac{359}{360} = 33208'' - \frac{33208''}{360}$

$= 33208'' - 92 = 33116 = 9^h\ 11^m\ 56^s$ mean time.

T. MOOTOOSAWMY.

Q. 9 Explain the equation of time, from what causes it arises; and state when from either cause it is additive or subtractive, and when from both causes it is a maximum. (*a*) Find an expression for the equation of time.

A. 9. The equation of time is the correction which we apply to the time shown by the sun to get the time shown by the clock. It arises from two causes, first from the obliquity of the ecliptic, and secondly from the elliptic form of the orbit, or in other words the unequable motion of the sun in the orbit. Let us suppose a fictitious sun to start from the equinox and move along the equator. From the equinox to the solstice the arc of the equator which the fictitious sun describes being greater than the arc described by the ecliptic sun, the latter will come to the meridian first. Therefore to get the mean time we must subtract the equation of time from the apparent. Therefore it is negative from 0 to 90 and from 180 to 270; or in other words the equation of time is subtractive from from the equinoxes to the solstices. Again, from solstice to equinox, the fictitious sun describes a smaller arc than the ecliptic sun, and therefore the former will come to the meridian first. We must consequently add the equation of time to the apparent to get the mean. The same happens from 270 to 360. Therefore the equation is additive from the solstices to the equinoxes. We have shown that the equation of time is subtractive in passing from the equinoxes to the solstices, and additive from from the solstices to the equinoxes owing to the obliquity —To find when it is additive and when subtractive from the other cause let us suppose two suns to travel in the ecliptic, one moving equably and the other at unequal rates. In passing from perigee to apogee, the unequably moving sun will be in advance of the mean ecliptic sun. Therefore to get the mean from the apparent, we must add the equation of time to the latter. Consequently the equation of time is additive from perigee to apogee; and it may be similarly shown that it is subtractive from apogee to perigee Equation of time simply due to the ellipticity is the difference of the motions of the ecliptic reduced to time or in other words, it is the equation of centre reduced to time. It is for that reason greatest when the equation of centre is greatest. The equation of centre being greatest and 2° at the end of the minor axis the equation of time is also greatest at the extremity of the axis minor. Its maximum therefore is

$2^{\circ} \times 60' = 120'$ a minute of time being equal to 15′ of space we have the greatest of time equal to 8′. The true equation of time owing to both the causes is the equation of time due to the obliquity combined with that due to the ellipticity. We may therefore express the true equation of time by the formula

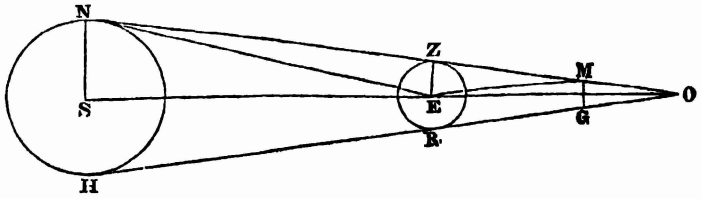
$E_t = E_o + E_e$, where E_t is the equation owing both the causes, E_o and E_e are those which arise from the obliquity and ellipticity respectively.

V. RAJAGOPAUL.

Q. 13. Illustrate by a figure the phenomena of a lunar eclipse. Find the breadth of the earth's shadow at the distance of the moon.

(β) Find the time and duration of a lunar eclipse.

A. 13. The phenomena of a lunar eclipse may be illustrated by the following figure.



S represents the sun, E the earth, L O R the conical shadow of the earth; when the moon enters the shadow, she is eclipsed. Let G M represent a portion of the moons orbit within the shadow. Join S and E and produce S E to meet the tangent N L in O: join E M and E N. In the triangle M E O $\angle$ M E O = E M L − M O E = P the moons hor. $\|^x$ − M O E.

In the triangle N E O

$\angle$ L O E = $\angle$ N E S − $\angle$ E N L

$= \frac{d}{2}$ sun's semi $\angle$r diameter − p his hor $\|^x$

∴ $\angle$ M E O or the radius of the umbra

$= P - \frac{d}{2} + p$

$= 1^{\circ} - 15' + 8''.6 = 60' - 15' + 8''.6 = 45' + 8''.6$

∴ the breadth of the shadow is 90′ nearly.

Q 12. Describe briefly and concisely the principal instruments found in an observatory and their uses. (α) Find the deviations of the transit instrument from the meridian and give the correction. (β) Describe accurately the mode in which the absolute zenith distance of a star is found.

A. 12. The principal instruments employed in an observatory are the transit, the mural circle and the sextant. The transit consists of a telescope passing through the middle of a cylinder, which is the axis and whose extremities are supported in piers of stone. The adjustment of this instruments are of great importance. The axis should be horizontal, the line of collimation should be perpendicular to the axis and the telescope should be secured in the plane of the meridian. By means of this instrument, the right ascensions of objects are observed with the help of a clock. The mural circle consists of a circle supported on a cylindrical axis, which is fixed in a wall. This is also a meridian instrument; by means of this, polar distances of celestial objects can be determined. The sextant is a sector with a moveable radius; the arc is graduated to 120 degrees, and the moveable radius carries at one of its extremities a vernier, and at the other, there is a piece of glass placed in the plane of the length of the moveable radius. There is another glass on one of its fixed radii, attached perpendicularly to the plane of the circle, and to the other radius a telescope is fastened. By means of the two glasses, the images of two objects are brought into the field of view, and the reading when they meet, gives the angle between the two objects. The transit and the mural circle are the only instruments that are essential to an observatory.

A. Narrain Row.

Q. 14. Find the solar ecliptic limit.

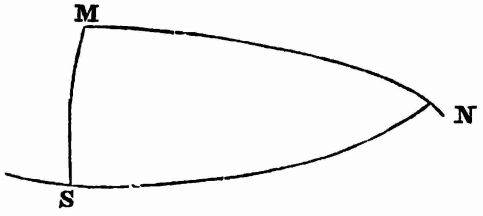
A. 14. The edge of the sun will touch the edge of the moon when the distance of the sun from the moon is equal to the sum of their semi-diameters and of the lunar horizontal parallax. As the moon and the sun have the same longitude, the latitude limit is equal to the sum of the semi-diameters of the sun and moon and the moon's horizontal $\|^x$

$\therefore$ Latitude limit $= 15' + 15' + 60' = 90'$

Let N be the node of the moon's orbit, S the sun and M the moon.

Now M S or the latitude limit $= 90'$

As our object is to get only approximation.



Solving the triangle M S N as a plane triangle.

$$S\,N = \cot S\,N\,M \,.\, M\,S$$
$$= \cot 5^\circ \times 90' = 12 + 90' = 18^\circ \text{ nearly.}$$

T. Mootoosawmy.

Conic Sections.

Q. 1. Assuming

$$\left\{ y^2 = \frac{\text{Sin } \vartheta}{\text{Cos}^2 \frac{a}{2}} \left(\delta . \text{ Sin } a . x - \text{Sin } \overline{a + \vartheta} \cdot x^2 \right) \right\}$$

the general equation to the section of a right cone by a plane, in what direction must we cut a cone, whose vertical angle is 60°, in order to obtain an ellipse with its major axis related to its minor as $\sqrt{3}$ is to $\sqrt{2}$?

A. 1. By reducing the general equation to the shape of the equation to the ellipse we have

$$y^2 = \frac{\text{Sin } \vartheta . \text{ sin } \overline{a + \vartheta}}{\text{Cos}^2 \frac{a}{2}} \left(\frac{\delta . \text{ sin } a .}{\text{Sin } \overline{a + \vartheta}} x - x^2 \right).$$

But the equation to the ellipse is $y^2 = \frac{b^2}{a^2} (2\,a\,x - x^2)$

Now by equating the coefficients, we have

$$\frac{b^2}{a^2} = \frac{\text{Sin } \vartheta . \text{ sin } \overline{a + \vartheta} .}{\text{Cos}^2 \frac{a}{2}}$$

But $\frac{b^2}{a^2} = \left(\frac{\sqrt{2}}{\sqrt{3}} \right)^2 = \frac{2}{3}$

$$\therefore \frac{2}{3} = \frac{\text{Sin } \vartheta \ (\sin a . \text{Cos } \vartheta + \text{Cos } a \ \sin \vartheta)}{\text{Cos}^2 \frac{a}{2}}$$

But $a = 60°$

$$\frac{2}{3} = \frac{\text{Sin } \vartheta . \sin 60° . \text{Cos } \vartheta + \text{Cos } 60° \sin \vartheta}{\text{Cos}^2 30°}$$

$$\therefore \frac{2}{3} = \frac{\frac{\sqrt{3}}{2} . \text{Cos } \vartheta . \text{Sin } \vartheta + \frac{1}{2} \sin^2 \vartheta}{\frac{3}{4}}$$

$$\frac{1}{2} = \frac{\sqrt{3}}{2} . \text{Cos } \vartheta . \text{Sin } \vartheta + \frac{1}{2} \sin^2 \vartheta$$

$$1 = \sqrt{3} . \text{Cos } \vartheta \sin \vartheta + \sin \vartheta$$

$$1 - \text{Sin}^2 \vartheta = \sqrt{3} . \text{Cos } \vartheta . \text{Sin } \vartheta$$

$$\text{Cos}^2 \vartheta = \sqrt{3} . \text{Cos } \vartheta . \text{Sin } \vartheta$$

$$\text{Cos } \vartheta = \sqrt{3} \sin \vartheta$$

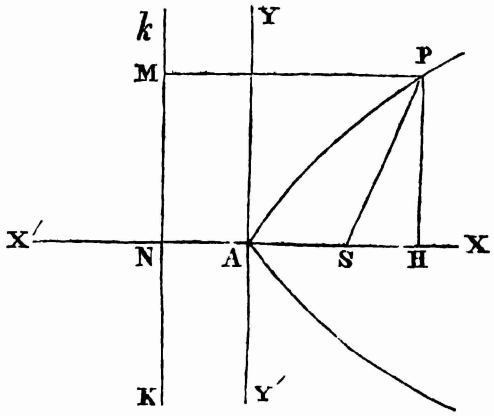
$$\frac{\text{Cos } \vartheta}{\text{Sin } \vartheta} \text{ or Cot } \vartheta = \sqrt{3}$$

$\therefore \vartheta = 30$ *i. e.* we must cut the cone by a plane which is inclined to one of the edges of the cone at an angle of 30°.

C. TEEROOVENGADUM.

Q. 3. Prove that $r = m . \sec^2 \frac{v}{2}$ for the parabola.

A. 3. Let X X′ and Y Y′ be the rectangular axes H A P a parabola, S the focus, K *k* the directrix. Take any point P in the parabola.



Join P S draw P H and P M $\perp^r$ A X and K k.

S P = P M = N S + S H = N S + P S. Cos P S H.

= N S — P S. Cos P S A.

$\therefore$ S P (1 + Cos P S A) = N S.

But N S = 2 m

$\therefore$ S P (1 + Cos P S A) = 2 m.

Let S P = r and the angle P S A = w

$$\therefore r = \frac{2m}{1 + \text{Cos } w} = \frac{2\ m}{2\ \text{Cos}^2 \frac{w}{2}} = m.\ \sec^2 \frac{w}{2}$$

V. RAJAGOPAUL.

Q. 6. The equation to an ellipse is $y^2 = 8\ x - 2\ x^2$ and that to a parabola $y^2 = 4\ x$; find the co-ordinates to the points of intersection of the two curves, and the angles between the tangents at those points.

A. 6. $y^2 = 8\ x - 2\ x^2$ the equation to the ellipse.

$y^2 = 4\ x$ the equation to the parabola.

Now by equating these two values of y^2 we have

$$8\ x - 2\ x^2 = 4\ x$$

$$\therefore 2\ x = 4$$

$$x = 2$$

$$y^2 = 4\ x = 4 \times 2 = 8$$

$$y = \pm\ 2\ \sqrt{2}$$

Therefore the ellipse cuts the parabola in two points, one of which is $x = 2, y = +\ 2\ \sqrt{2}$ and the other $x = 2, y = -\ 2\ \sqrt{2}$.

C TEEROOVENGADUM.

AN ESSAY*

ON

THE ADVANTAGES WHICH RESULT TO A COUNTRY FROM AN EFFICIENT ADMINISTRATION OF JUSTICE.

There are two conflicting elements in the human breast, which though they may at first sight appear to be totally inimical to the welfare of mankind, are invariably found to contribute to the preservation of the harmonies of civil and social life. These are self-love and social-love. It is the antagonism of these motives, and their hostile array against each other, it is the discrepancies that constantly exist between the interests of the individual and the interests of the community, that impose upon a people the indispensable necessity of establishing social institutions, for their material welfare and happiness. Of all the means that are employed to prevent the pernicious effects of these discrepancies, or to destroy them by re-action, laws are the most important and the most efficacious. They are intended to act as a restraint upon the natural proneness of man to despoil his fellow-man of his property, to suppress vice and licentiousness, to punish villainy and crime, and in short to disperse the clouds of evil which threaten society with danger and destruction.

The professed object of all laws then, is to maintain the moral dignity of a nation, to ensure the social happiness of the community, and to provide for the security of those inalienable rights of mankind, life, property and reason. This object is accomplished in different degrees in different countries, varying from a nominal and loose administration of justice, to a comparatively perfect and even distribution of the blessings of human law. These degrees of differences are, with unerring certainty, attributable to the individual

* This Essay was the best of those written in competition for the Elphinstone Prize of the present year, but was considered by the University Board to fall below the standard of absolute merit necessary to be attained by all Prize Essays. It is now printed to allow the public an opportunity of forming an opinion regarding the composition of the Senior Students.

merits of the legislator, who enacts the law, and of the judge that expounds it and acts up to its spirit. Too true it is that the philosopher and the critic, the divine and the moralist, the barrister and the lawyer, the merchant and the navigator are all, in a measure, active agents in furthering the progress of a people in the career of refinement and civilization ; but principally and above all, there are the legislator and the judge, on whom depend the most vital interests of mankind, and to whom are consigned duties which are sacred in their nature and highly responsible in their character, and which nothing short of an acute perception invigorated by sound experience and comprehensive judgment, can fulfil, to the promotion of individual happiness and the advancement of the common weal. The whole family of mankind is divided into the two grand divisions of the governors and the governed, those by whom justice is dispensed and portioned out, and those among whom it is dispensed. The discharge of the sacred office entrusted to them is the duty incumbent upon the former ; and to evince an appreciating sense of a rigorous administration of justice is the obligation imposed upon the latter. Whatever may be the mutual offices of the rulers and the ruled in securing to society unruffled peace and order, whatever may be the opposing evils which are in the way of realizing this object, whatever natural defects may predominate in the moral organization of a people, a universal spread of enlightenment is the most efficient engine for establishing in a country a healthy system of jurisprudence, for overcoming every moral obstacle, for repairing every physical weakness, and at the same time for augmenting the availability of every promising element which may exist in the national character. It is only when the liberalizing influence of education pervades the various ranks of society, when the minds of men are well taught to distinguish right from wrong, it is only then that justice is administered with stern severity, the governors are impressed with an impulsive feeling of duty, awed into propriety, and induced to adopt honesty as their policy, and to look upon the general good of the community as their principle, by the mighty and the salutary influence of the tribunal of public opinion.

After seeing why laws are essential to the well-being of society, and how education is serviceable in imparting efficiency to the administration of justice in a country, it may not be thought foreign to our purpose to devote some space to the consideration of the impor-

tance of the subject before us. It is one of overwhelming importance and serious interest, comprehending under its influence the well-being of the agricultural and manufacturing classes, the progress of commerce and refinement, of literature and science. It is the life and soul of society; and exercises the same influence in the moral world as the attraction of cohesion does in the physical. It binds individuals together, by the strong ties of social harmony and friendship. It is in fact the "centre and focus" from which all happiness, all regularity, all peace and order proceed; it is the object all pant after with anxiety and solicitude; and it is the blessing which the most zealous philanthropist can wish for his fellow-creatures. This is the efficient administration of justice,—the impartial distribution of the blessings of human law. It is under its fostering influence that the most transcendant passions of the human breast are fully developed, patriotism is engendered and cherished, a disposition to industry awakened, and ample scope is furnished for the manly exercise of every organ of the body and every faculty of the mind.

Now to proceed to the subject. The advantages which a country reaps from an efficient administration of justice are multifarious and important. The first and principal of these is the security of person and property, and the undisturbed enjoyment of the fruits of one's own labour. This constitutes the foundation stone of the fabric of society, and serves as an infallible index of the position which a nation occupies in the scale of refinement. The greater is the degree of this security, the farther have the people advanced in the road of civilization. It is beyond the utmost stretch of human fancy to conceive the anarchy and confusion that would prevail in a country, were property to be totally insecure, and life exposed to every species of violence and shut out from the protection of the law. Were such to be the case, how deplorable would be the condition of humanity, how little would be the chance in favor of the continued existence of the human race, and how foreign would nations be to the very idea of happiness! All this is, certainly, the pictured image of a condition, founded merely upon hypothesis, and totally irreconcileable to truth and reality. But however there are countries which are the scenes of bloodshed and confusion, which exhibit the mournful spectacle of the strong dispossessing the weak of their property, and resting for the justification of their conduct upon the

perverse principle that might is right. Such a state of society is necessarily the result of the absence of an efficient system of civil and criminal jurisprudence, and of a strict and rigorous police. When laws are not enforced, in all their rigor and severity, there is neither security of person nor of property; and consequently the country where such a loose administration of justice is suffered to prevail, is visited by that tremendous host of evils which naturally accompany insecurity of property; but on the contrary, when security of person and property is established, on a broad basis, when men are exempted from the apprehensions of robbery and murder, when they are assured of safety against the rapacity of the plunderer and the dagger of the assassin, industry flows uninterrupted, the capital of the wealthy is employed to reward the toil of the indigent, the farmer exults in his undisputed mastery over the crops which he has raised by the sweat of his brow, and in short health and plenty activity and cheerfulness smile all over the land.

History furnishes us with innumerable examples, illustrative of the ruinous tendency of the evils which are entailed upon society by a nominal and loose administration of justice. Almost all the Mahomedan countries are contending with the pernicious effects of insecurity of property. The annihilation of the commercial importance of Tyre once a flourishing city is entirely to be attributed to the inefficiency of the police and to a want of rigor and severity in the execution of the laws. The fallen state of Egypt, where once civilization triumphed over barbarism, knowledge over ignorance, and justice over rapine, is to be traced to the same cause; and at Tunis which was once highly renowned for the manufacture of silk, no one attends to the cultivation of the mulberry; for there is no security of property, and the Pasha himself is found to be an enemy to the industry of his subjects. All these examples serve to show that if justice be not dispensed with impartiality, but on the contrary if fortune and property, life and existence depend on the will of an individual, if the "freaks of his fancy" deprive us of the amassed fruits of our industry, if the "fits of his frown" cut short our days in this world, if law is made to suit the occasion and his temper, the fabric of society will fall to pieces, the human race will be assimilated to brute nature, and the noblest ends of the creation defeated.

The next advantage that results to a country from an efficient administration of justice is civil liberty. When we speak of civil liber-

ty, we mean the freedom of every man to do any thing he chooses, but not hurtful to society. This in fact is a liberty which all have a right to enjoy, as the individual members of the community, and which it is the main object of all laws and social institutions to secure to man. Idle theorists may condemn laws, for their setting limits to the natural and ferocious liberty of the human species; but there is little or no weight in this objection. True it is that laws deprive man of a portion of that natural liberty, which is characteristic of his primitive state, true it is that they enforce from him the observance of certain recognized principles of society, true it is that he is visited with condemnation and punishment, whenever he transgresses the bounds of legality; but this diminution of liberty, and this subjection to rules are more than compensated for by the advantages which result to society from such salutary restraints. It is only when this civil liberty is best secured, that the greatest happiness is conferred upon the community at large; it is only when every individual is allowed the freedom of applying his energies in any department of industry which to him appears the most beneficial, it is only when there is an absolute independence for the exercise of the intellectual faculties, reason and imagination, reflection and judgment, it is only when the liberty of conscience is ensured to every man, when he is allowed to adore the Almighty under any form he pleases, it is only then that society can boast of a perfect enjoyment of the blessings of peace and tranquillity. All this is secured to a nation evidently by good laws, and an impartial administration of justice, in accordance to those laws. England bears strong and indisputable testimony to the solid benefits which flow from the impartial execution of good laws; for it is there that civil liberty is enjoyed to a very high degree, partly owing to the reforms daily introduced into the Jurisprudence of the country, and partly owing to the dispensation of justice on the firm based principles of integrity and righteousness. Of all the means provided in that country for the security of civil liberty to individuals, there is perhaps none which redounds more to the glory of the English legislature, and to the credit of the English nation than the Habeas Corpus Act. Its influence is of high importance, and productive of many blessings to a nation; for when the innocent and the poor are unlawfully subjected to the horrors of imprisonment, it interferes and stretches forth its hand to afford them relief.

The third great advantage which results to a country from an efficient administration of justice is the establishment of social peace and order. There are various obstacles in the way of securing the blessings of peace and tranquillity to a nation, for man is influenced by motives of selfishness, and ever seeks after self-aggrandisement. It is this disposition in him that requires to be opposed and checked, and which, notwithstanding all human efforts, exercises its influence in a great measure to disturb the peace of society. The passions reign in one man's breast with humanizing moderation, in another they run extravagant and prove the source of many a misfortune. Envy and indignation, ambition and avarice, secret heart-burnings and jealousy, incite men to the commission of offences and render them guilty in the eye of the law. The robber breaks open into a house, the pick-pocket and the highwayman plunder the property of others, the villain transgresses the bounds of morality, and the assassin draws his sword against his fellow-man; but all calculating the chances of evading detection and punishment. Thus it is that the ends even of an active watching police are defeated, thus it is that offences are committed which escape the cognizance of the most talented magistrate. The advantages however which an efficient police and a rigorous tribunal of justice confer upon society are innumerable and inestimable. It is true that an army is essentially necessary to watch over the maintenance of national security, and national peace, it is true that the concentrated energies of thousands are indispensably requisite for repelling the aggressions of a foreign invader, and for curbing all insurrectionary spirit at home. But would not these prove a curse to the nation instead of a blessing, if they were even for a time removed from the effective influence of a watching police, and a regular court of judicature.

The police we may say is a handmaid to the courts of justice. It not only discovers delinquencies and secures the person of the delinquent, but exercises at the same time, a preventive influence. If laws, for example, against house-breaking were enforced in all their rigor, we would enjoy a certain degree of security in our beds; add to these a regulated watch for the sake of preventing evil intentions from being carried into effect, how considerably would that security be augmented. While criminal laws and the police are defending society against the inroads of wrong and rapine, civil laws enforce from individuals the observance of contracts and solemn agreements,

the payment of debts and the fulfilment of social functions. We may remark, with a little digression, under this head, that it is inconsistent with reason and experience to suppose that laws can ever cleanse this world from the incidental imprudence and the infectious guilt of mankind, can ever entirely exterminate lust and pride, vice and malevolence, from the face of the earth, can ever establish peace and order in their perfect form ; for if laws were ever to realize this object to society, then they should have reached the ultimatum of perfection, then humanity should have conquered nature, because nature has affixed the seal of imperfection to humanity. Justice and law are irrefragably connected with insubordination and punishment. Man will go wrong, and law will set him right.

These are not all the advantages which result to society from an efficient administration of justice. It not only represses evils and repairs wrongs, but also operates most beneficially on social refinements, and affords every species of stimulus to that national and international intercourse which is highly favorable to the happiness of a nation. While it detects and punishes smuggling and piracy, while it persecutes cunning and duplicity, does it not hold out indirect encouragements to individuals to employ their capital and industry in supplying the wants of one country with the superfluities of another. It therefore tends in a great measure to develope the resources of a country, to augment its wealth and to extend the sphere of comforts and enjoyments of its people. When justice is administered impartially and upon an efficient system, knowledge derives an indirect and powerful stimulus, and flourishes to work out a most salutary change in the ideas, opinions, manners and customs of the different nations on the face of the earth; for no sooner do good laws and an efficient administration of justice establish peace in society than its inseparable concomitants, literature and science, learning and politeness appear on the stage. Arts and sciences are cultivated, nature examined, and talent and merit are buoyed up above all, interest and birth, rank and influence. If we have recourse to history, to ascertain the influence of an inefficient and perverted administration of justice, upon knowledge, we find it to be inimical to the cultivation of truth, and to the examination of nature. The courts of inquisition, which once spread the horrors of persecution over all Europe, stifled merit in its very birth, and stood in the way of exploring the mysteries of nature. Galileo for example was

rewarded with imprisonment for his striking out a novel theory of the motions of the heavenly bodies. Thus it is that injustice is always followed by pernicious results, and is ever branded with disgrace.

Lastly, an efficiency in the system of dispensing justice exercises a salutary influence on the morals of a people. When justice is impartially administered, and when punishments are inflicted upon insubordination and guilt, the law is then rendered serviceable to us in two ways, as an administerer of correctives, and as an instructor of weighty moral lessons. When almost every violation of the recognized principles of society is taken cognizance of, and ignominy and destruction are made to descend upon its author, the awful conviction that this world is, as it were "the scene and commencement" of a retribution of moral justice obtrudes itself upon our mind, and we are enabled in a measure to form to ourselves a conception of the awful sublimity, and the impartial justice of the tribunal of Him who sits as a judge over the universe. In this point of view, an efficient administration of justice is a grand auxiliary to religion, and is highly favorable to the moral happiness of a people. It gives a peculiar sensibility to the heart, and places us entirely under the influence and jurisdiction of our conscience, that monitor within, that warns us when we deviate from the path of rectitude, and gives us the meed of approbation, when our motive and the action following it, are consonant with the doctrines of morality. If it is the object of religion to "extinguish strife, and make a calm of life," to produce content and happiness, and in short, to connect man with his creator, how useful an efficient administration of justice is in promoting the ends of religion, and in spreading the blessings of morality and righteousness over the earth. He that has no touch of conscience, no sense of guilt, or whose heart is callous to the impressions of good and evil, is made alive to the distinctions of virtue and vice, and is educated to appreciate the meritoriousness and excellence of the one, and to abhor the monstrousness of the other. Man in short rises from "legality to virtue," from a habitual obedience to laws, to a strict observance of the offices of piety and the duties of religion, and from an appreciation of moral justice to a recognition of the Almighty God.

Such are the advantages which result to society from an efficient

administration of justice, and such is the influence which it exercises upon the physical, social, and moral condition of man.

Before coming to a close upon this subject, it may not be thought irrelevant to discuss in what consists the *efficiency* of administering justice, and what the requisites are to ensure that efficiency. The efficiency of administering justice consists in a speedy and deliberate disposal of cases brought before a court, in accordance to the established laws of the country. This efficiency is imparted to the administration of justice by securing various elements. First of all the laws should be enacted upon universal and liberal principles; they should not favor the interests of a particular class, profession or sect; but the general good of the community should be their principal object. Secondly, no ambiguity should be suffered to prevail in the definitions of the laws; and the punishments awarded should be proportionate to the different degrees of crime. An ambiguous code, as far as its ambiguity extends is not merely equivalent to the absence of law, but is much worse than that; for it leaves the power of the judge arbitrary, and covers the arbitrary exercise of that power under the mask of law. A free press and an intelligent bar are also essential for rendering the administration of justice efficient. The press is a most wonderful nation* for raising nations in the scale of humanity, for illuminating men's minds with the rays of knowledge, and for impressing upon every individual the necessity and importance of fearlessly discharging his respective functions. It infuses terror in the bosoms of the judge and the magistrate, because it is in readiness to expose the defects and faults of a public functionary ; and it excites in them a guarding spirit of ambition, for it is the medium by which their true merits and excellencies are brought forward, and their righteous conduct recommended to the esteem of the public. In short it exercises a salutary influence on society by attaching weight and importance to public opinion, and thus in a great measure contributing to the safety of the public happiness. An intelligent bar is just as potent in its workings and as beneficial in its results as the press. It not only acts as a wholesome restraint upon the natural caprice and the inclining partiality of the judge ; but it also assists him in drawing

* This and every other mistake, even to an error in punctuation, is printed just as it occurs.

forth truth from the bosom of the most skilful party. There is another element which is equally necessary to secure an honest administration of justice, and this is the trial by the public. This institution is the noblest achievement of legislative wisdom, and serves as an infallible indication of an impartial distribution of justice in a country. The co-operation of fixed and casual judges in a trial is a sure guarantee against unjust decisions, against the condemnation of innocence and against the acquittal of guilt. To have only fixed judges to conduct a trial and pass the verdict, is in some measure productive of evil; for unchecked and free as they are left, they are likely to be influenced by the dictates of caprice, prepossession, or antipathy; whereas if we have merely casual judges, the want of experience may produce the same evils as a wilful perversion of justice. When we combine casual and fixed judges for conducting trials, we in fact combine rigor and impartiality with skill and experience.

In conclusion, we may assert without exaggeration that an efficient administration of justice is one of the chief elements of civilization, and contributes highly to the promotion of the happiness of a people. It is an indisputable fact that since the advent of the English into this country, a high degree of security has been enjoyed by the nation, peace and order have been established in society, and the seeds of education and knowledge have been widely scattered every where. All this affords to every sincere friend of India ample grounds for hoping that the administration of justice here will be rendered highly efficient, that the corruption which prevails in a great degree in the Mofussil will be entirely put down, that measures will in course of time be adopted for preventing judges from being influenced by the dictates of caprice, antipathy or some sinister motive. Time the over-working revolutionist will, it is to be fervently wished, subject the Indian courts of justice to the salutary influence of a free press, and an able and intelligent bar, and the goddess Astræa will eventually rain down blessings of perfect justice, tranquillity and peace over all India, and convert the land into a paradise on earth.

A. Narrain Row.

REPORTS OF EXAMINERS.

Report on Smyth's Lectures.

I have pursued the same method as in former years for ascertaining the relative merits of the boys.

The accompanying table shows the result. Rajagopaul has obtained the highest number of marks, notwithstanding that he has left two questions unanswered: as they are the last, I presume from want of time.

T. Mootoosawmy and P. Chinnatomby have obtained equal numbers; and I therefore bracket them as equal. It appears to me however that Mootoosawmy is probably the most thoughtful of the two.

The boys have this year kept strictly to my wishes in not introducing irrelevant matter, and although the answers are shorter than in former years, I think they are all the better for it.

The whole of the boys appear to me to be more level with each other than in any former year that I remember. No especial brilliancy is shown by any one; but on the whole *all* are better than in former years.

I am glad to see that the handwriting is generally improved.

The vivâ voce examination was satisfactory.

(Signed) JOHN BRUCE NORTON.

January 15th, 1853.

Number of Questions.	1	2	3	4	5	6	7	8	9	10	Total.
Values of Questions.	8	10	8	4	8	5	8	6	6	3	65
Names of Scholars.											
T. Mootoosawmy.....	4	6	5	3	6	5	—	4	5	—	38
P. Vurda Ccharry.....	6	5	5	3	5	5	—	1	—	1	31
C. Teroovengadum.....	4	6	3	3	6	3	4	4	—	—	33
V. Kristnama Charry.....	4	6	3	2	5	3	3	3	—	2	31
A. Narrain Row..	6	6	3	1	3	3	5	5	—	—	32
V. Rajagopaul.	6	8	6	4	6	4	3	5	—	—	42
A. Dique.....	4	5	4	2	3	1	4	4	3	3	33
P. Chinnathumbee..	7	7	4	2	0	3	4	3	5	3	38

(Signed) JOHN BRUCE NORTON.

Report on Russell's Modern Europe.

15th January, 1853.

The perusal of the answers in this subject has confirmed my opinion that the boys are very level this year.

Indeed I scarcely know how to place them: Teroovengadum and A. Narrain Row have carried the highest numbers, which, I attribute however rather to their facility in writing, giving them more time to answer a greater number of questions, than to any decided superiority over their fellows.

Indeed I would be disposed to award the palm for neatness and succinctness of answer to T. Mootoosawmy in this subject: were it not that as a general rule he who obtains the highest number is entitled to the highest place.

In the vivâ voce examination the boys were, I thought, particularly successful, and amply showed that had they had sufficient time they would have satisfactorily answered all the questions set them in writing. I consider that they exhibit a marked improvement on last year.

(Signed) JOHN BRUCE NORTON.

No. of Questions.	1	2	3	4	5	6	7	8	9	10	11	12	Total.
Values of Questions.	8	6	5	8	5	6	4	10	12	6	8	10	88
Names of Scholars.													
P. Vurda Charry.....	5	5	4	4	4	4	4	9	8	—	—	—	47
V. Rajagopaul.	5	5	4	4	5	6	4	10	9	—	—	—	52
T. Mootoosawmy.....	7	5	5	5	5	5	4	10	10	—	—	—	56
A. Dique.....	7	5	5	4	2	3	4	3	12	3	—	—	48
P. Chinnatumbee	7	5	5	5	2	3	4	—	9	2	—	—	42
V. Kristnama Charry...	7	5	5	7	5	5	3	9	9	—	—	—	55
C. Teroovengadum,.....	7	4	5	6	5	6	4	6	9	4	1	—	57
A. Narrain Row.....	8	4	4	7	5	6	4	6	8	4	2	—	58

(Signed) JOHN BRUCE NORTON.

Report on the Shakspeare Papers.

I very much regret that a mistake as to the day prevented me from being present at the vivâ voce examination. I am thus limited in forming an estimate as to the relative merits of the boys to their written answers. Speaking generally I should say that the language is better and more English, than any that I have yet seen—it is freer from pretension, and those unmeaning ambitious phrases which are the besetting sin of the English composition of the Natives. In judging of the merits of the answers I have taken into consideration both the language and the spelling, but I look upon both as inferior in consideration to an accurate knowledge of the text, and under-

standing of the author. Having endeavoured to take all these points into consideration, I would arrange the names of the students in the following order.

1. P. Vurda Charry. 2. V. Rajagopaul. 3. V. Kristnama Charry. 4 and 5. C. Teroovengadum and A. Narrain Row. 6. P. Chinnathumbee. 7. T. Mootoosawmy. 8. A. Dique.

The answers of V. Rajagopaul to the first question, of C. Chinnathumbee to the fourth, of P. Vurdacharry to the fifth and of V. Kristnama Charry to the eighth, might, I think, be published as creditable to the writers.

(Signed) EDWARD SALMON.

March 5th, 1853.

	1	2	3	4	5	6	7	8	9	Total Number.
P. Vurda Charry.....	7	6	6	7	10	9	—	8	8	61
C. Teroovengadum.....	5	5	5	8	7	8	6	6	—	50
P. Chinnathumbee.....	4	4	5	9	8	7	6	6	—	49
A. Narrain Row..... ..	7	5	5	6	8	7	5	7	—	50
V. Rajagopaul.....	8	5	6	10	7	8	7	7	—	58
A. Dique.....	4	4	4	6	7	5	6	5	—	41
V. Kristnama Charry, ...	6	0	5	7	8	7	8	8	—	49
T. Mootoosawmy..... ..	7	7	4	9	8½	7½	0	6	—	49
Value.	8	10	10	10	10	12	10	10	10	90

Report on Political Economy.

To

The Principal of the Madras University.

SIR,

The following is my classification of the Scholars of the 4th class of the High School, whom I examined in Political Ecomomy at the late examination.

	No. of Marks.
1. A. Narrain Row,	34
2. T. Mootoosawmy,	32
3. C. Teroovengadum,	30½
4. P. Chinnathumbee,	29
5. A. Dique,	26½
6. P. Vurda Charry,	25½
7. V. Rajagopaul,	22¾
8. V. Kristnama Charry,	21

The total number of marks assigned for perfect answers to the questions given was 58, of which Narrain Row, the first on the list, has obtained 34.

The answers generally evince a very creditable knowledge of the subject, and are very equal in point of merit;—the difference in marks being for the most part caused by the entire omission of questions, owing probably to the shortness of the time allowed.

The result of the vivâ voce examination was very satisfactory.

I have the honor to be,
Sir,
Your most obedient Servant,

MADRAS,
16*th March*, 1853.

(Signed) A. J. ARBUTHNOT,
Secretary.

Report on Astronomy.

To

A. J. ARBUTHNOT, ESQ.,
Secretary Madras University.

DEAR SIR,

At your request I attended the oral examination of the High School and gave an Astronomical paper to the Upper Fourth Class. At the oral examination of the two upper classes in Geometry by the Head Master I was much struck by the accuracy of their knowledge, which convinced me that they were well grounded in the subject. My paper had reference to Herschel's Treatise on As-

tronomy, but it was suggested to me that I might treat the subject mathematically ; I therefore gave such questions as would be set in a Cambridge Senate House examination, that is as far as their reading had gone—and I have much pleasure in stating that the results of the examination were most favourable. The answers show not merely a popular knowledge of facts, but an accurate knowledge of principles ; they not merely state results, but in very many cases exhibit the mathematical processes by which these results are to be obtained. I do not hesitate therefore to express my opinion that as far as they have gone in the subject, the boys are thoroughly well acquainted with it,—moreover I could not help observing a peculiar taste and aptitude for such studies. I would particularize the name of T. Mootoosawmy, who most distinguished himself in my part of the examination.

I remain,
My dear Sir,
Yours very faithfully,
(Signed) JOHN RICHARDS, M. A.

ST. THOMAS' MOUNT,
3d March, 1853.

Herschel's Astronomy.

Full value of paper, - - - - - - -	280	(1.)
T. Mootoosawmy, - - - - - - - -	167	
P. Vurda Charry, - - - - - - - -	132	(2.)
C. Teroovengadum, - - - - - - -	137	(2.)
P. Chinnathumbee, - - - - - - -	136	(2.)
V. Rajagopaul, - - - - - - -	113	
A. Dique, - - - - - - - - -	90	
A. Narrain Row, - - - - - - - -	76	
V. Kristnama Charry, - - - - - -	61	

(1.) This is the full value of the paper, but I could not expect that any boy would be able to answer all the questions.

(2.) These three boys I should bracket together ; on the whole perhaps P. Vurda Charry did best.

Report on Tamil.

To

A. J. ARBUTHNOT, ESQ.
Secretary to the University,
&c. &c &c.

SIR,

I have the honor to report the result of the Tamil Examination of the Scholars of the High School, at which, under the directions of Government, conveyed in Extract Minutes of Consultation 30th November 1852, I assisted.

The vivâ voce examination took place on the 18th December 1852, and was conducted under my supervision, from 11 A. M. to 5 P. M. There were 79 boys present, and the books in which they were examined were—

1. Rhenius's Elements of Tamil Grammar.
2. Cadamunjery Tales.
3. Mahalingeah's Abridgment of Grammar.
4. Neetheesura-väkkian or Moral Selections.
5. Robertson's Selections.
6. Punja Tuntrum or Pilpay's Fables.
7. Tondeveraya Moodelly's Catechism of Grammar.
8. The Nunnool or Superior Grammar.
9. The Kûral, or Aphorisms in Verse.
10. The Naladeiyar in verse.

Both lower and upper Classes were examined by Vizaga Peroomal Iyer, the Head Tamil Teacher, who was relieved occasionally by myself. I had every reason to be satisfied with this vivâ voce examination. The junior classes seemed to have had pains taken with them, and the higher Division were thoroughly acquainted with the Books they had studied.

The *written* exercises consisted of—

I. A Tamil Paper (being part of a prose work by Beschi, not read in the School) to be translated into English.

II. An English Paper of moderate difficulty to be translated into Tamil.

III. An English paper somewhat easier for the next division.

IV. A theme for a Tamil Essay.

L. Vurdarajooloo,
C. Teroovengadum,
M. Rajah Rutnum,
T. Devisagamany,
V. Soobramanien,
A. Rajah Gopaul,
P. Somasoondrum.

The 1st Paper was attempted by 22, half of which were inferior translations. Out of the remaining half, the Scholars named in the margin have the pre-eminence in the order given.

P. Somasondrum.
T. Mootoosawmy,
V. Rajah Gopaul,
C. Teroovengadum.
T. Gopaulkistna,
L. Strenevassaloo,
V. Vurda Charry.

The 2d Paper was attempted by 9 scholars ; 7 of them were fairly rendered by those named in the margin.

The 3d paper was executed by some of the Scholars of the higher classes, although not intended for them. Of the 3d class the paper by Poonasawmy was the best.

Eleven Essays were sent in. The subject given was "What are the particular requisites to be attended to in making translations."

C. Teroovengadum,
P. Somasoondrum,
T. Mootoosawmy,
V. Rajah Gopaul,
V. Kistnama Charry,
P. Soobroyen.

The Essays of those named in the margin are very respectable as regards the Tamil Composition. Of the views set forth in them it is not my province to judge. The observations made are not deserving of any particular notice, and time did not admit of much thought on the subject.

I am happy to be able on the whole to report favourably. It cannot be expected that the standard of proficiency should advance year after year, because the elder scholars are gradually withdrawn. What is taught is taught well, and though great stress is evidently laid on the acquisition of a little of the higher or Poetical dialect, yet I am less disposed than I was, to repudiate this branch of study, as long as the more practical course is not neglected.

The difficulty of obtaining the services of a person fully conversant not only with Tamil but with English accounts for a certain

degree of deficiency in the translations into Tamil, though judging of them merely as Tamil exercises they are creditable.

I have the honor to be,
Sir,
Your most obedient servant,
(Signed) W. H. BAYLEY.
Tamil Translator to Government.

Report on Telugu.

December, 1852.

Examination of the Telugu Classes in the Madras High School.

In obedience to the orders sent me by Government, I have now examined the Telugu Classes.

The Junior Classes were first examined: their knowledge extends little beyond spelling. As far as they went they did tolerably. The upper division of this class came next, and had fair success. In the second class the pupils answered well. In the lowest class, Wylie answered best: in the next class Ramaniyam: he reads very well.

In the third class the pupils were examined in Telugu Grammar and an easy Poem. They acquitted themselves quite satisfactorily.

The fourth class was last examined: they were tried in the Manu Charitra, a Telugu classical Poem written in a difficult style. They passed examination in this very well indeed.

The third and fourth classes were then examined by the Native Tutors in Telugu Grammar. And while the learners deserve great credit the teachers are to be blamed (as I have declared in each previous examination) for exercising the class in matters, of etymology and so forth, which are intricate and useless: exercising memory alone, without judgment. The rules so industriously taught are of no avail, and at present are wholly neglected by English Students because known to be useless. Indeed the scholars forget these rules on quitting school, and are none the worse. In a word the rules are fruitless and ought to be forbidden.

The classes third and fourth were also examined in written exer-

cises translated from Telugu into English, and from English into Telugu. The twelve best may be classed thus :—

	From English		*From Telugu.*
A. Narrain Rao, stands	1st.	.....	3d.
P. Varada Chari, ...	2	.....	4
B. Gopalaya,..	3	.....	2
P. Chinna Tambi,.....	4	.....	5
C. Vencatapati,.....	5	.....	7
Chemacuri Venu Gopalu,.. ...	6	....	8
D. Partha Saradhi, ...	7	.....	6
A. Rutnasami, ...	8	. .....	9
P. Vencata Krishnama,.....	9	.....	1
C. Cuppu Swami, T. Bhaganant Rao, N. Narayana Swami, ...	10	.....	10

Both the tutors and the pupils have again stated that the time allowed them for studying Telugu in each week is far from sufficient.

(Signed) C. P. Brown,
Telugu Translator to Govt.

Madras,
December, 1852.

Madras Mahratta Translator's Office,
15*th January*, 1853.

From

Major J. Crisp,
Mahratta Translator to Government.

To

A. J. Arbuthnot, Esq.
Secretary Madras University.

Sir,

I have the honor, for the information of the President and Governors of the Madras University, to submit the following report on the examination in Mahratta of the students of that language belonging to the High School which took place on the 17th and 18th December last.

The Moonshee of my Department superintended the proceedings of the first day, which was taken up in making translations of written exercises by the fourth or highest class and in reading of the minor classes. The vivâ voce examination was conducted by myself in person on the 18th.

Hereunder are submitted the Exercises which were executed by the fourth class.

From Maharatta into English, 29 lines of Grant Duff's Mahratta History, Lithographed, pages 124 and 125.	The translation were all completed in Two hours and a half.
From English into Mahratta, 25 lines of Marshman's History of India in Print, pages 130 and 131.	The translation of this was not finished under three hours.

P. Narasimmooloo,
C. Ramiah,
M. Soobooroyaloo.

Three students only were competent to undertake the foregoing Exercises. Their names are inserted in the margin in order according to their respective merits. All the papers given for translation and the translated papers are transmitted herewith.

The order of merit of all the classes is exhibited in the following Roll :

4th Class.	*1st Class.*
1. Ramiah, C.	1. Kistnama Charry, A.
2. Narasimmooloo, P.	2. Sungeeva Row, R.
3. Soobooroyaloo, M.	3. Rama Row, T.
	4. Rama Row, C.
3rd Class.	5. Vencataramiah, Y.
1. Vencata Row, H.	6. Sabaputhy, C.
2. Aroonagherry, C.	7. Shunmogum, M.
3. Balajee Row, C.	8. Seethaputhy, T.
4. Govindoo Row, A.	9. Ponnoosawmy, P.
5. Parthasarady, P.	10. Rajoonaikloo, C.
	11. Ragooputhy, T.
2nd Class.	12. Taylor, S.
1. Ragara Row, C.	
2. Vencatakistna Row, R.	
3. Teroovengadum, M.	
4. Soobu Row, P.	
5. Narasinga Row, M.	
6. Vencatasawmy, P.	
7. Arathoon, A.	
8. Aroomogum, M.	

The result of the examination was upon the whole satisfactory; but not more so than the examinations of the former years, and there are none that can be prominently put forward as very superior in their attainments, although generally commendable.

I have the honor to be,
Sir,
Your most obedient servant,
(Signed) JOHN CRISP,
Mahratta Translator to Govt.

Abstract Account of the Actual Disbursements of the Madras University, during the last six months of the official year 1851-52, *or from* 1*st November*, 1851, *to* 30*th April*, 1852.

	Rs.	A.	P.	Rs.	A.	P.
HIGH SCHOOL.						
Amount paid the Establishment including the Secretary's Department and Government Scholarships, from 1st November, 1851, to 30th April, 1852, - - -	13,959	7	9			
House Rent from do. to do.	1,260	0	0			
				15,219	7	9
CONTINGENT CHARGES.						
Books and Book-binding, - -	115	13	0			
Furniture, - - - - -	35	0	0			
Printing, - - - - - -	97	10	0			
Stationery, - - - - -	301	1	1			
Philosophical Apparatus, - -	828	0	0			
Gold Rings for Proficients, -	220	0	0			
Elphinstone Prize, - - -	72	12	0			
Sundries, - - - - -	146	0	3			
Elphinstone's Endowed Scholarship, - - - - - -	72	0	0			
				1,895	4	4
				17,114	12	1
DEDUCT.						
School fees realized during the above period, - - -	2,442	0	0			
Amount realized from Government Scholarship, - -	10	0	0			
Amount of interest realized at different periods on Elphinstone's Endowment Bonds in the Madras Bank, - - - - -	107	7	0			
				2,559	7	0
Net Amount of Expenditure, -	.....	..	..	14,555	5	1

MADRAS UNIVERSITY,
7th June, 1852.

Abstract showing the Advances received from Government on account of the Madras University from 1*st November*, 1851, *to* 30*th April*, 1852, *Actual Disbursements during the same period, and the balance of Cash remaining on the* 30*th April*, 1852.

	Rs.	A.	P.	Rs.	A.	P.
Balance of Cash on the 31st October 1851, appropriable to Disbursements of the year, -	4,725	10	2			
Amount of advance received under orders of Government dated 11th November, 1851, - -	10,000	0	0			
Amount of do. 9th March, 1852,	10,000	0	0			
				24,725	10	2
DEDUCT.						
Disbursements as per Abstract Account from 1st November, 1851, to 30th April, 1852, - -	.....	.	.	14,555	5	1
Balance of Cash on the 30th April, 1852, appropriable to future Disbursements, - - - - -	.....	..	..	10,170	5	1

Errors Excepted,

(Signed) A. J. ARBUTHNOT,

Secretary.

Abstract Account of the Actual Disbursements of the Madras University during the first six months of the official year 1852-53, *or from* 1*st May to* 31*st October*, 1852.

High School.	Rs.	A.	P.	Rs.	A.	P.
Amount paid the Establishment including the Secretary's Department and Government Scholarships from 1st May to 31st October, 1852, - - - - -	13,933	0	0			
House Rent from do. to do. -	1,260	0	0			
				15,193	0	0
Contingent Charges.						
Books and Book-binding, -	271	2	9			
Furniture, - - - - - -	31	8	0			
Printing, - - - - - -	801	0	7			
Stationery, - - - - - -	6	8	0			
Sundries, - - - - - -	179	10	5			
Elphinstone's Endowed Scholarship, - - - - - -	6	0	0			
				1,295	13	9
				16,488	13	9
Deduct.						
School-fees realized during the above period, - -	2,796	0	0			
Amount of interest realized at different periods on Elphinstone's Endowment Bonds in the Madras Bank, - - - - - -	107	7	0			
				2,903	7	0
Net Amount of Expenditure, -	.....	..	..	13,585	6	9

Madras University,
12th November, 1852.

Abstract showing the Advances received from Government on account of the Madras University from 1st May to 31st October, 1852, Actual Disbursements during the same period, and the Balance of Cash remaining on the 31st October, 1852.

	Rs.	A.	P.	Rs.	A.	P.
Balance of Cash on the 30th April, 1852, appropriable to Disbursements of the year, - -	10,170	5	1			
Amount of advance received under orders of Government dated 20th July, 1852, - - - - -	10,000	0	0			
				20,170	5	1
DEDUCT.						
Disbursements as per Abstract Account from 1st May, to 31st October, 1852, - - - - -	....	..	..	13,585	6	9
Balance of Cash on the 31st October, 1852, appropriable to future Disbursements, - -				6,584	14	4

Errors Excepted

(Signed) A. J. ARBUTHNOT,

Secretary.